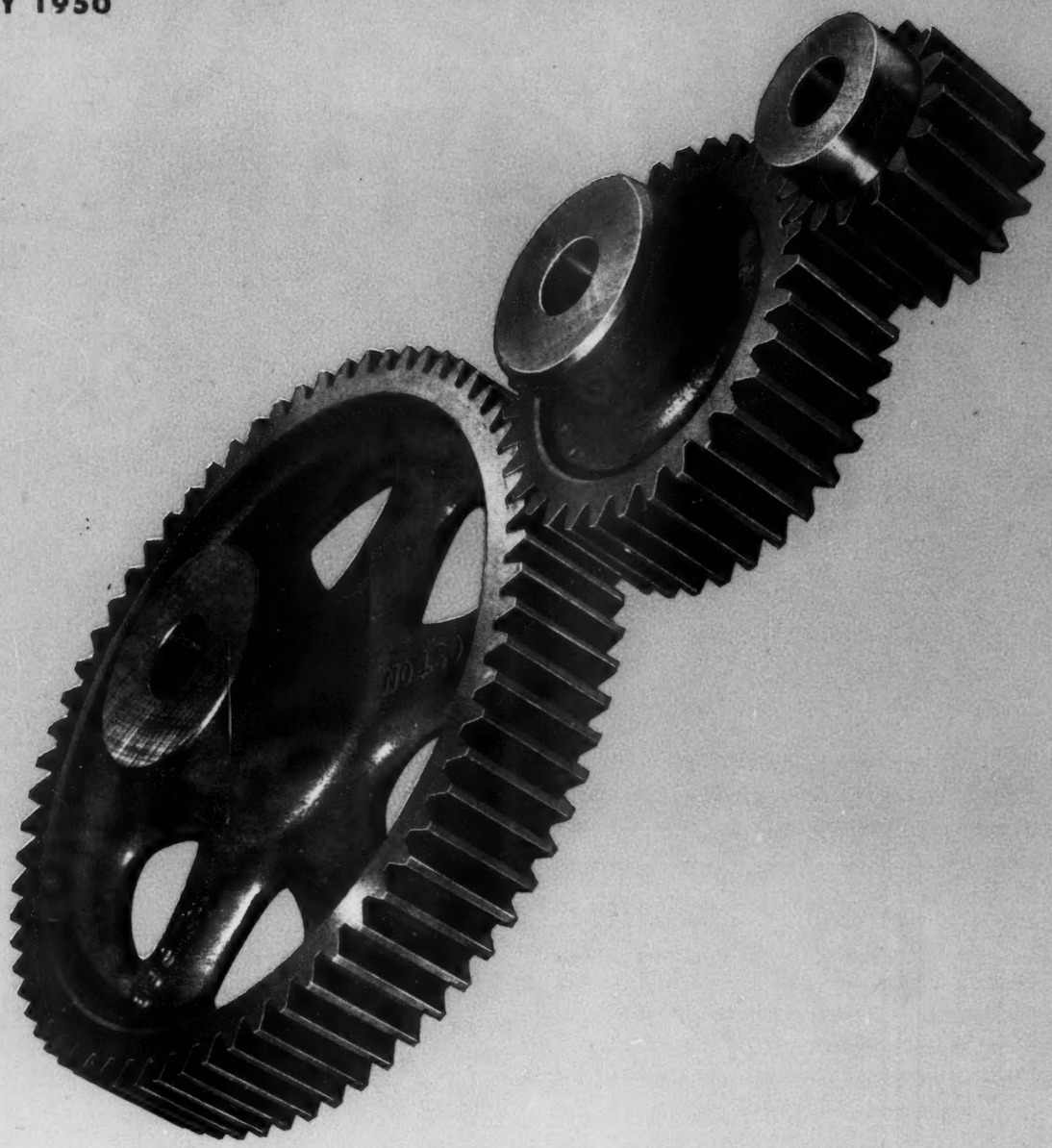
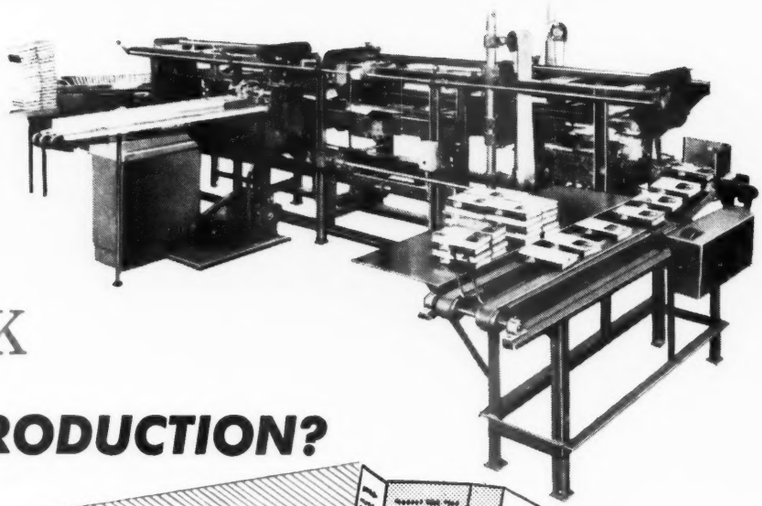
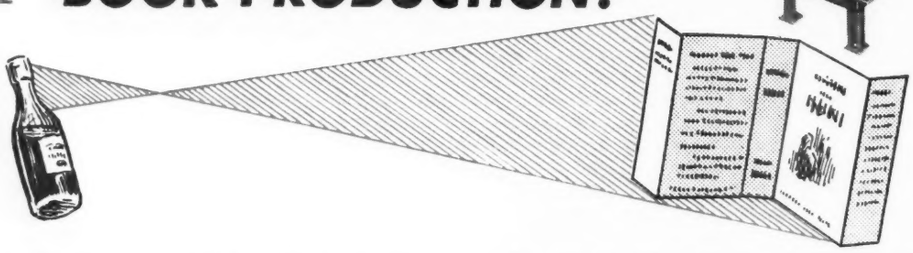
FEBRUARY 1950



PRINTING EQUIPMENT *Engineer*

DOES JACKETING CONSTITUTE A BOTTLENECK in your **BOOK PRODUCTION?**





THE new Dexter-de Florez Jacketing Machine applies jackets at a rated speed of 3500 to 4000 books per hour, creasing them around covers and delivering a quality of finished work surpassing that of careful manual operation.

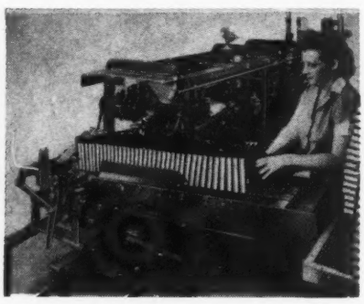
Jacketing costs come down as much as 50%. Inspectors are freed to concentrate on *inspecting*, which means a further decrease in production costs and a substantial increase in number of books jacketed and inspected over any given period.

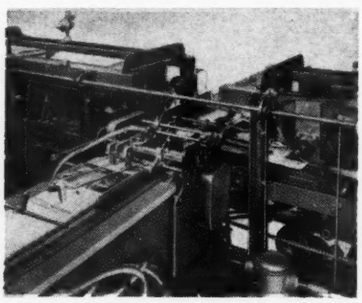
Books are propelled through the machine by chain pushers. Covers are opened and jackets are applied—and wrapped by twisting canvas belts. Wrap may be controlled to any desired tightness.

As books advance, jackets are creased and books are closed and delivered to discharge conveyor. Conveyor speed may be varied to deliver books interleaved—or one by one, at any desired spacing.

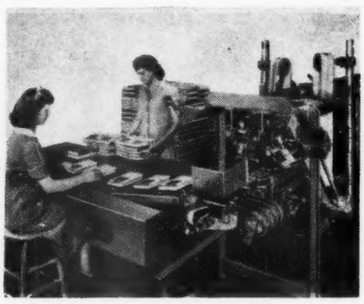
The Dexter-de Florez Jacketing Machine is rugged, built for long, trouble-free service. It is also simple, easy to adjust, hence economical for use on *short* runs, as well as long; is powered by ¾ H. P. motor, through special safety clutch and brake; occupies about 21′ x 9′ of floor area.

If jacketing is currently a slow and expensive operation in your plant, you will do well to write for further information about this remarkable time and labor saving machine.—Please address





Books and jackets are fed in automatically, the former from hopper, which can be loaded to permit uninterrupted operation—the latter by a Cleveland continuous automatic feeder.



Delivery includes table, on which books may be stacked temporarily—for backing, facing and skidding. Where books are to pass immediately to subsequent operation—as cartoning, interleaved delivery permits removal by one person.

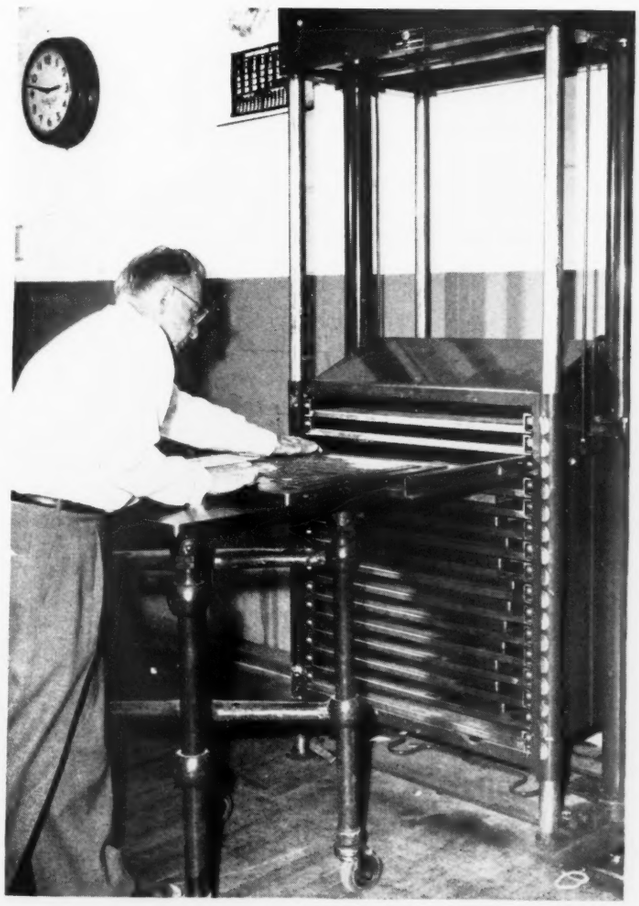
Dexter Folder Company

General Sales Offices

330 WEST 42nd STREET • NEW YORK 18, N. Y.

CUT COMPOSING ROOM COSTS!

Save time and space with a Sta-Hi Form File



● *Cliff Hanlen, Composing Room Foreman, shown sliding a form from one of the STA-HI Power Lift Form Files in operation in the new and modern plant of the Phoenix, Arizona,* REPUBLIC & GAZETTE.

● The STA-HI Power Lift Form File gives you easily accessible "live filing" room for 16 full size newspaper page forms in a *condensed floor space of only 7 square feet.*

● One man can slide a form in or out of the Form File in a *matter of seconds.*

● Forms are easily and quickly filed or pulled out in *one operation*—direct from truck to filing shelf, or from shelf to truck. No intermediate "transfer" operation is necessary.

ONE-SLIDE, TRUCK-HIGH OPERATION!

● All forms are handled in or out of the Form File at *convenient truck-high level* —no need to stoop down or reach up.

● One easily operated control lever moves the shelves up or down instantly, to the exact desired position. *Safe, powerful, positive* hydraulic action does the heavy work for you!

● Write today for complete details.

STA-HI **SUPERIOR NEWSPAPER PRODUCTION MACHINERY**

STA-HI CORPORATION • 235 W. WASHINGTON BLVD. • WHITTIER, CALIF.

CORRECTION!

People are always interested in the mistakes of others. That's why the heading stopped you!

Every one who sets type knows that corrections are inevitable. Often these changes add up to a considerable loss in time on a job and it is only with Monotype that this loss can be minimized. Corrections of Monotype single-type composition are easily and quickly made. Characters are removed or changed by hand or the matter is reset at the machine, whichever is the more economical or expedient at the time the work is done. It is thus not necessary to reset an entire line to make a simple correction in Monotype composition; nor is it necessary to change matrices, molds and measures when corrections are made by hand, using type in cases.

LANSTON MONOTYPE MACHINE COMPANY
24th and Locust Streets, Philadelphia 3, Pa.

One or many characters may be picked out easily from a setting and replaced by others from the cases.

A note about the type: Heading Monotype, 36pt. 20th Century Extra Bold Condensed, 607—Sub-Heading 10pt. Ultra Bodoni, 675—Text 12pt. Bodoni Book, 875A, 5pt. line spacing—Signature 8pt. Ultra Bodoni, 675—Caption 11pt. Bodoni Book 875A

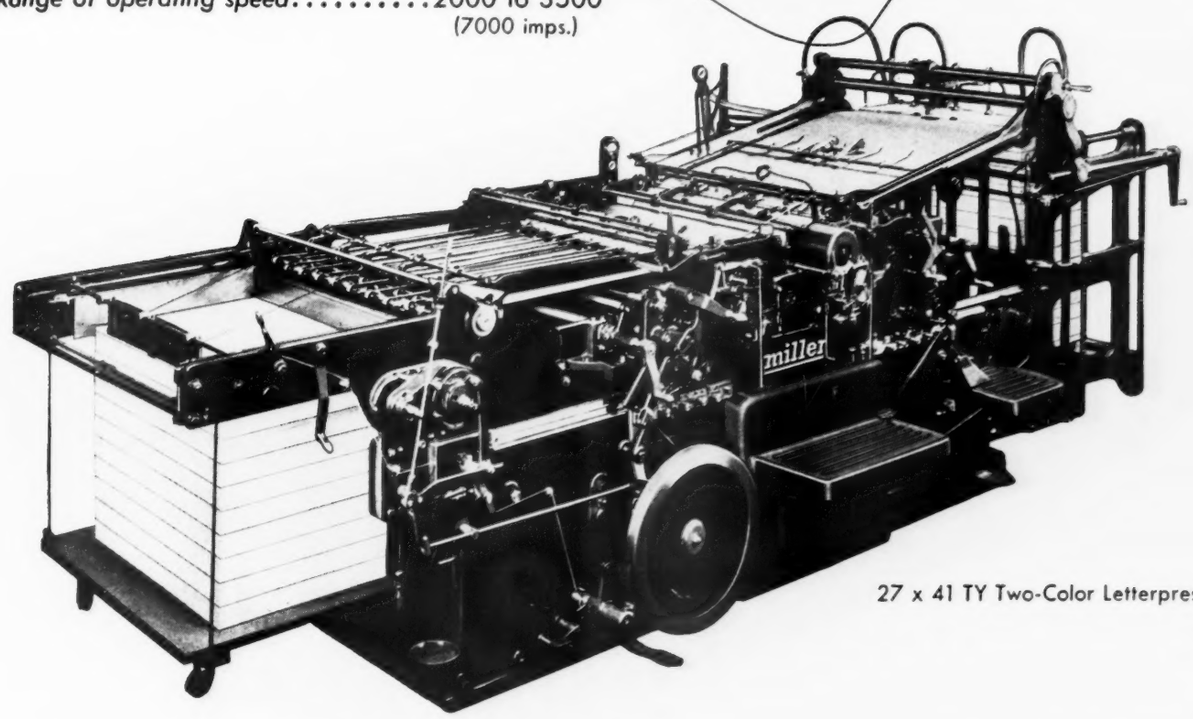
Bed Size.....29¼" x 41½"

Maximum Sheet.....28" x 41"

Maximum size form on bed...25" x 41" each

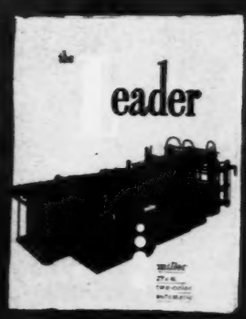
Maximum size form in chase.....25" x 38" each

Range of operating speed.....2000 to 3500
(7000 imps.)



27 x 41 TY Two-Color Letterpress

Write today for your copy of the booklet fully describing the Miller 27 x 41 TY. Contains complete specifications, floor plans, and illustrations of many features of this popular press.



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COMPOSITION ROLLERS
FOR
WINTER USE

SHIP YOUR OLD ROLLERS
TO FACTORY MOST CONVENIENT TO YOU

OVER ONE HUNDRED YEARS OF ROLLER MAKING

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PRINTING EQUIPMENT *Engineer*

A TECHNICAL MAGAZINE

FEBRUARY 1950

Volume 79 Number 5

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

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Printed in U. S. A.

LEADING ARTICLES FOR FEBRUARY 1950

The ABC of Offset 29
GEORGE JOS. LENZER

Equipment and Supplies 33
Flat Plate Solidifying and Finishing Machine, 32
G-E Generator Bulletin, 33
Hydro Power Pack, 33
Ink Conditioner, 33
Kelly Three Press, 33
Adjustable Makeready Table, 33
"Pen" Microscope, 34
High-Intensity Arc Light, 34
Airfinishing Unit, 34
Transparent Films Chart, 34
Elevating Table Bulletin, 35
Radiant Electric Dryer, 35
Hand Cleaning Powder, 35
Augustine Platemakers' Bandsaw, 35
Taylor Registerscope, Jr., 35
Battery Cell Tester, 36
Tape Applier, 36
Reliance V*S Drive, 36
Gearmotors Announced, 36
Dual Purpose Copyist, 36
Box-type Truck, 36
Recommends Processing Technique, 43

Starstarter 37
T. R. SYKES

Exposition Previews 40

Offset-Lith Technical Forum . . . 40
ADAM HENRI REISER

$250,000 Laboratory at RIT . . . 43

Executive Paragraphs 44

Record Established for Pages Printed on Straight Press Run. 45

The Milwaukee *Journal* Photoengraving Department 46
JULIAN J. EBERLE

Du Pont Gravure Transfer Film . 49

Great Lakes Mechanical Conference 51

Conference Dates Box 60

Patents For The Graphic Arts . . 65

MODERN Photoengraving

by Louis Flader and J. S. Mertle

TEXT prepared for those in need of technical information. Especially suitable to printing's production and mechanical executive. Included are a glossary defining 775 trade terms; 18 chapters (each dealing with a branch of photoengraving); 47 Tables of Data; 392 illustrations; 206 Chemical and Mathematical Formulas; Tables of Weights, Measures and Conversions, Process Hygiene, and 21 pages of Index.

Price $15 postpaid in U.S.A. $16 in countries outside U.S.

PRINTING EQUIPMENT *Engineer*

1276 W. 3rd St. Cleveland 13, O.

PRINTING EQUIPMENT *Engineer* is an

EXHIBITOR

GRAPHIC ARTS EXPOSITION

CHICAGO-SEPTEMBER 11-23-1950

Mr. *Publisher* and your *Mechanical Staff!*

• You have heard of "cross-over" runs using units from one line of presses to a press in a second line.

• The unretouched cut here produced shows such a run being made in the new pressroom of The Milwaukee Sentinel.

• The press was running at a speed of 40,000 per hour when the picture was taken. Please note the evenness of the papers going up the conveyor and the steadiness of the web.

WALTER SCOTT & CO., INC.

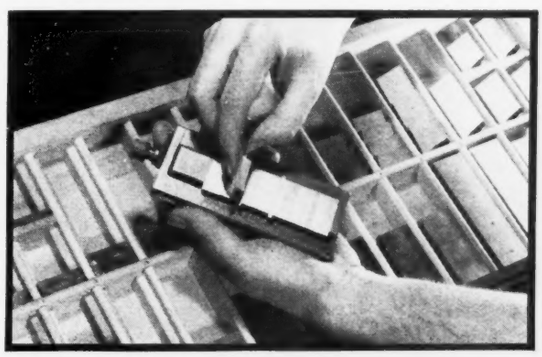
PLAINFIELD, N. J.

THE LUDLOW

for efficient setting and spacing

Ludlow matrices are "gathered" in words or syllables

The direct method of Ludlow typesetting eliminates unnecessary motions and operations. Instead of the compositor's hand "traveling" to and from the case for each character, and then turning it for proper positioning, he "gathers" the broad, flat Ludlow matrices in words or syllables, and quickly places them in the matrix stick. Such procedure means immediate, worth-while time-saving.



It's easy to space out a line of Ludlow matrices

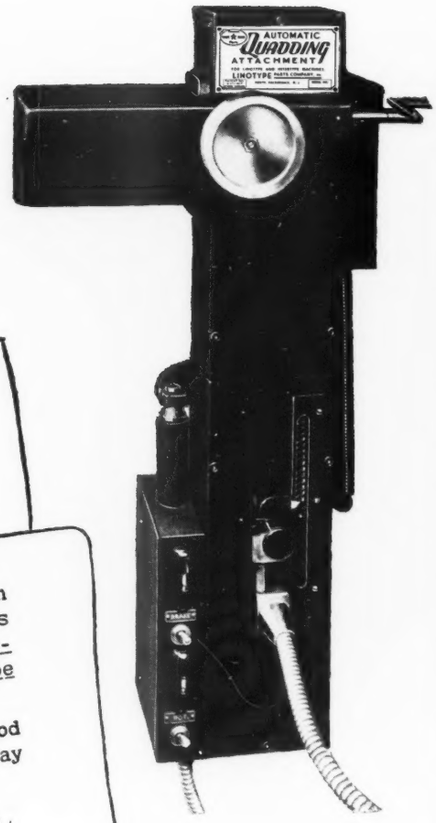
Instead of spaces hard to get at, the "ears" of Ludlow spaces extend beyond those of letter matrices, and the line is quickly and easily spaced out. Proper word-spacing or letter-spacing are readily attainable with Ludlow composition. Spaces from one-half point to six points in thickness make sure that the spacing is right visually between words and letters. There is no "spacing tight to lift"—a simple turn of the knob on the stick holds the line of matrices firmly for casting. Efficiency in setting and spacing is one reason why Ludlow composition goes up so readily. Let us tell you more about the Ludlow—without obligation.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

Set in members of the Ludlow Eusebius family

This user's opinion of the STAR AUTOMATIC QUADDER

is typical of those expressed by many other purchasers



The Cobleskill Times

SCHOHARIE COUNTY JOURNAL

"We have had our STAR AUTOMATIC QUADDER in operation now for four weeks and believe it is a first class installation in every respect. It accomplishes exactly the same work as a quadder built into a linotype machine. . . .

"The materials and workmanship are equally as good ...and it is a profitable investment...on all display for newspaper and job printing."

Chas. L. Ryder
Publisher

The underscoring is added by us.

Consider how much automatic spacing could speed *your* production—how much money it could save *you.*

Consider too, that you can have *these* advantages and *these* economies without sacrificing your present perfectly good equipment.

The STAR QUADDER can be placed on your present Linotypes or Intertypes quickly and easily. Should you later on want to sell the basic machines, the STAR QUADDER can be removed without marring them, or hurting their selling value—and you still have the STAR for continuing use on your new linecasting equipment.

Mr. Ryder's opinion is typical of many letters from buyers over the U. S., some of whom have already ordered additional STAR QUADDERS.

There'll never be a better time than right now to write for complete information on how you too, can benefit with the **STAR AUTOMATIC QUADDER**

EXHIBITOR
GRAPHIC ARTS EXPOSITION
CHICAGO SEPTEMBER 11-23 1950

PRECISION
TRADE ★ MARK

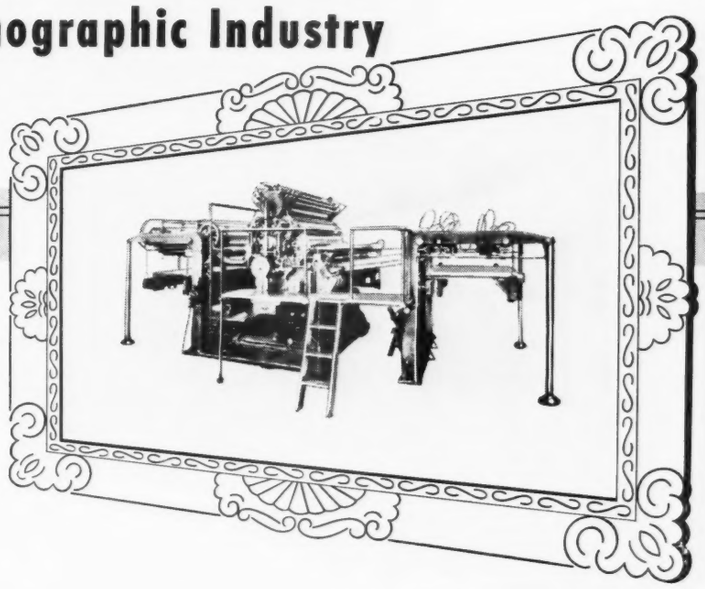
LINOTYPE PARTS COMPANY
INCORPORATED

Factory and Main Office
SOUTH HACKENSACK, N. J.

Branch Office:
1327 BROADWAY, KANSAS CITY 6, MO.

CHICAGO · MINNEAPOLIS · DENVER · NEW YORK · BOSTON

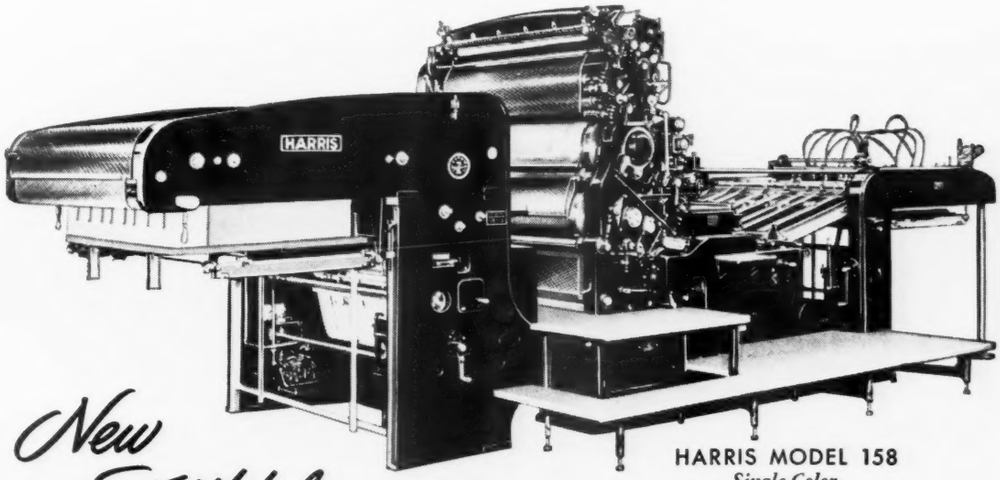
WORK HORSES
of the Lithographic Industry



Old Faithful

Billions of sheets . . . millions of dollars. Who could calculate all the work that has been turned out (and is still being turned out) by the old faithful Harris Model LF? In its heyday, its output was absolute tops. Register was matchless.

But, as fine a press as the LF was, you can't help but see that the new Harris Model 158 is part of a new era in the lithographic industry. Register is finer than ever before. It's geared to a faster pace . . . engineered to keep its owner well ahead of operating costs. Figure out, for instance, what a 75% increase in running speed has meant in its owners' profit picture!



New Faithful

HARRIS MODEL 158
Single Color
42" x 58" Offset Press
Also available in
two- and four-color models.

HARRIS-SEYBOLD

GENERAL OFFICES, DEPT. G129, CLEVELAND 5, OHIO

THE *Guiding Light* TO PRINTING PERFECTION

OUTER OR UPPER BLANKETS

COMBINO

An extremely durable clean printing laminated blanket.

"TINGUE" COATED FELT

The same durable coating as "COMBINO" affixed to a repressed felt blanket. For those who prefer a softer packing. Wool Felt also available uncoated in gauges .063 and .083.

UNDER BLANKETS

CUSHION CORK*

Highly resilient and recommended as the underpacking for "COMBINO" or in combination with "FOUNDATION" Blanket or "TINGU-CORK" where a drawsheet is used.

TINGUCORK*

Much firmer than "CUSHION CORK" and preferred where precision plates are available as a companion blanket for "CUSHION CORK", "FOUNDATION" or "COMBINO."

FOUNDATION

A firm durable oilproof under packing laminated with "Neoprene" for use in combination with "CUSHION CORK", "TINGUCORK", and "TINGUE" Drawsheets or Felt.

KORKER*

Loses .006 to .008 during first 50,000 impressions and then holds at a constant level for the life of the blanket. Desirable for plants with older type presses, or, where an unfavorable mechanical condition exists.

*Reg. U. S. Pat. Office

DRAWSHEETS

GOLD TYMPAN

An old favorite for Flat Bed Presses. Skivered metallic surface accepts excess ink and flakes it off without smudging.

IMPROVED SATISFACTION

Coated with "Calvaprene" by DuPont, on a fabric which has been impregnated with "Neoprene."

TOP

This drawsheet is firm, durable, economical and of long life.

STERLING

The post-war plastic coated Drawsheet. Extremely durable.

TINGUE BROWN AND COMPANY

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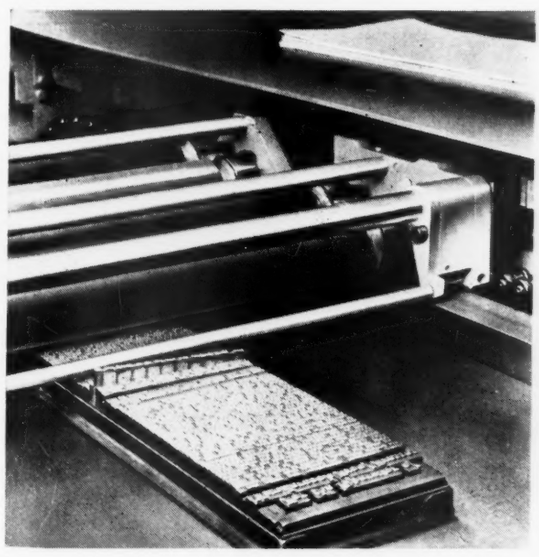
No. 23 Vandercook

Safe Electric

Proof Press



Now available from American Type Founders

A New Vandercook Galley Proof Press with Safety Device to Instantly Stop Machine on Contact with Any Object Above Type High!

Now in production, this completely redesigned machine will meet the demand of newspapers and printers for a *High Speed* and *Safe Electrically Operated Proof Press*, delivering up to 40 proofs a minute!

The new No. 23 Vandercook *"Safe Electric"* Proof Press has a bed size of 15" x 26", and occupies a floor area of 36" x 57". Inking mechanism consists of a motor driven Ink Drum, Vibrator and 4 Synthetic Rubber Form Rollers. Two wide hinged doors on the front and back of machine make all driving and operating mechanism readily accessible.

Most remarkable improvement is the new safety device—so sensitive that any obstacle $\frac{1}{16}$" or more above type high . . . including a slug as shown in the illustration on the left . . . will instantly stop the press.

Ask your nearest ATF Representative for full particulars about this and the twelve other Vandercook Proof Presses available from ATF.

AMERICAN TYPE FOUNDERS ATF

200 Elmora Avenue, Elizabeth B, New Jersey

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Keeping in Touch

International Printing Ink®

31 Branch Offices in Principal Cities

IPI • DIVISION OF INTERCHEMICAL CORPORATION • 650 ELEVENTH AVE., N. Y. 19 • ADDRESS INQUIRIES DEPT. A

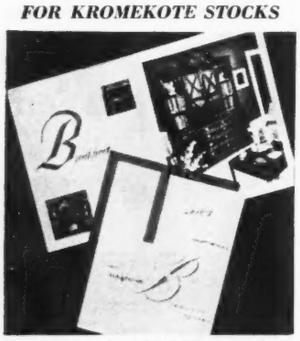
"GEMTONE INKS JUST WON'T CRYSTALLIZE" "STAY OPEN FOR MONTHS", SAY PRINTERS

NEW HALFTONE BLACKS SOLVE TOUGH PROBLEMS FOR PRINTERS EVERYWHERE

For tough halftone printing problems, there is nothing like the new IPI Holdfast Halftone Blacks. Printers everywhere tell us they print as well under modern speed conditions as conventional linseed oil halftone blacks. These inks are really new—made with new materials and by new methods. They print sharp and clean with high resistance to scratching or smudging.

Free specimen folders show results with 6 of the new IPI Holdfast Halftone Blacks. Send for a copy today.

FREE—"KNOCKOUT" EXAMPLES OF IPI INKS FOR KROMEKOTE STOCKS



Printers say these RCA Victor folders are "knockout" examples of process printing on Kromekote, best they've seen. Write for your free copy today.

GEMTONE INKS TRAP PERFECTLY AFTER 6 MONTHS FOR NEW UTRECHT PRESS, INC.

Here is real news for printers. New Utrecht Press, Inc. (Brooklyn, N. Y.) has proved that IPI Gemtone inks end crystallization problems. Odd circumstances led New Utrecht to print two colors of the above (4-color process) signature in June, 1949—and run the last two in December, six months later. Results are beautiful—perfect trapping, fast drying, brilliant colors and "premium finish".

This job is remarkable proof of what fine craftsmanship and the right inks can do. This "delayed action" printing has all the sparkle and snap of the same sheets printed in regular manner. (For the book "How To Use Color and Decorating in the Home"—Greystone Press, N. Y.). Detail is sharp and clear with the illusion of depth. Background colors are rich, lustrous and smooth.

IPI Gemtone Process inks are tops for 4-color process printing on sheet-fed presses. Send for the free Gemtone Comparison folder today. Ask your IPI salesman or write us at IPI Headquarters, 650 11th Ave., New York 19, N. Y.

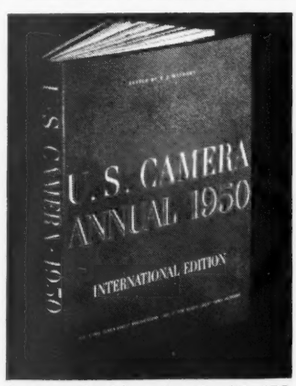
IPI, Holdfast and Gemtone are trademarks of Interchemical Corporation.

Trap Beautifully After Long Periods–Colors Sparkle, Print Sharp, Gloss High

"Your Gemtone Process inks are wonderful! They just won't crystallize — stay open for months" says Frank Butti, Production Manager of New Utrecht Press in Brooklyn, N.Y.

Gene Farinacci, pressroom foreman for New Utrecht Press, added this, "Gemtone Process inks saved us a week's work. Last June we had 4,500 overrun sheets printed with IPI Gemtone Process inks—4 colors on one side, 2 on the other"—plate damage prevented final printing—"when our customer reordered the job in December (six months later) we simply ran the last two colors. Inks trapped beautifully. Both sides have the same color brilliance and sparkling finish".

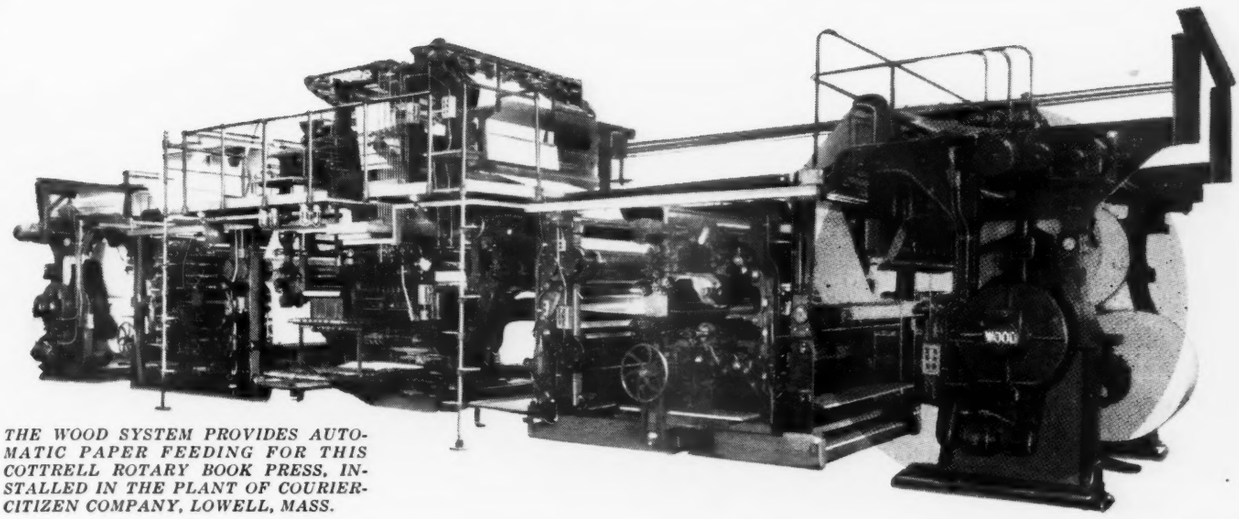
This job is all the more remarkable because colors run last were originally first down. Its grand to know you can buy process inks that give top quality results even if you wait six months between colors and have to run the job in reverse.



Once again it's printed with IPI inks. **U. S. Camera Annual has been printed with IPI blacks and process inks for 15 straight years.**

FERD'NAND Posthaste **By Mik**

PROBLEM: HOW TO FEED A PAPER-HUNGRY PRESS...
BEST ANSWER: THE WOOD SYSTEM OF AUTOMATIC FEEDING!



THE WOOD SYSTEM PROVIDES AUTOMATIC PAPER FEEDING FOR THIS COTTRELL ROTARY BOOK PRESS, INSTALLED IN THE PLANT OF COURIER-CITIZEN COMPANY, LOWELL, MASS.

To satisfy the huge appetite of a high speed Rotary Book Press such as the Cottrell pictured here, calls for equipment capable of performing three functions.

- A GOOD PRECISION BUILT REEL FROM WHICH TO UNWIND THE WEB
- A POSITIVE METHOD TO ACHIEVE SENSITIVE WEB CONTROL
- THE MEANS TO REPLENISH THE WEB WITHOUT STOPPAGE OR SLOW-UP

WOOD PNEUMATIC TENSION—*Provides highly selective, sensitive web control during every run and every splice through gentle, powerful air pressures. Tension belts are individually controlled by air pistons operating automatically to keep belt at selected tension. Available with fixed belts for newsprint or with running belts for delicate stock and paper converting.*

WOOD AUTOPASTER—*Without stoppage or the slightest slow-up, webs are replenished and spliced entirely automatically by merely pushing a control button. Shortens running time, reduces waste, power consumption, wear on presses and men.*

WOOD REEL—*Designed and built to highest precision WOOD standards. Accommodates webs of any size or width.*

IF IT'S Wood IT'S GOOD

WRITE FOR COMPLETE INFORMATION AND ILLUSTRATED BROCHURE.

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17

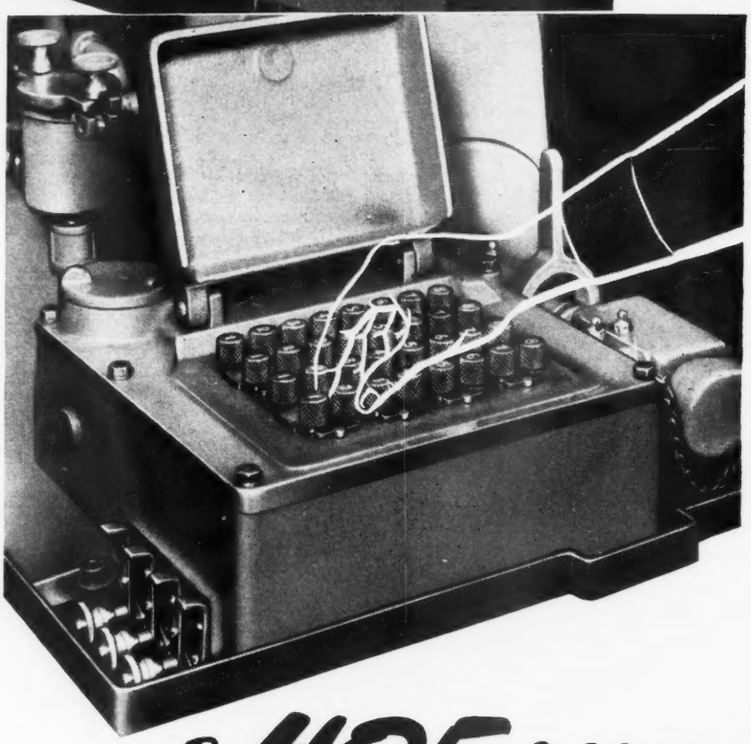
One-motion ink control

In introducing the feature of ink feed adjustments from outside the press, many years ago, Hoe provided for one-motion control. Column selection and inking adjustment are made by ***one movement*** of a knurled screw.

With the Hoe pump system of ink distribution there is always a measured supply of clean, agitated ink to each column of the paper. Each pump box contains four rows of eight individual pumps, one pump per column and one row per page. Adjustable knurled screws control the piston operation of each separate pump and thus the quantity of ink fed to each column at any press speed is accurately controlled.

Ink is pumped through separate copper tubes directly to inking cylinder, thus eliminating ductor rollers entirely. Separate controls completely cut off ink to any page for fractional roll runs.

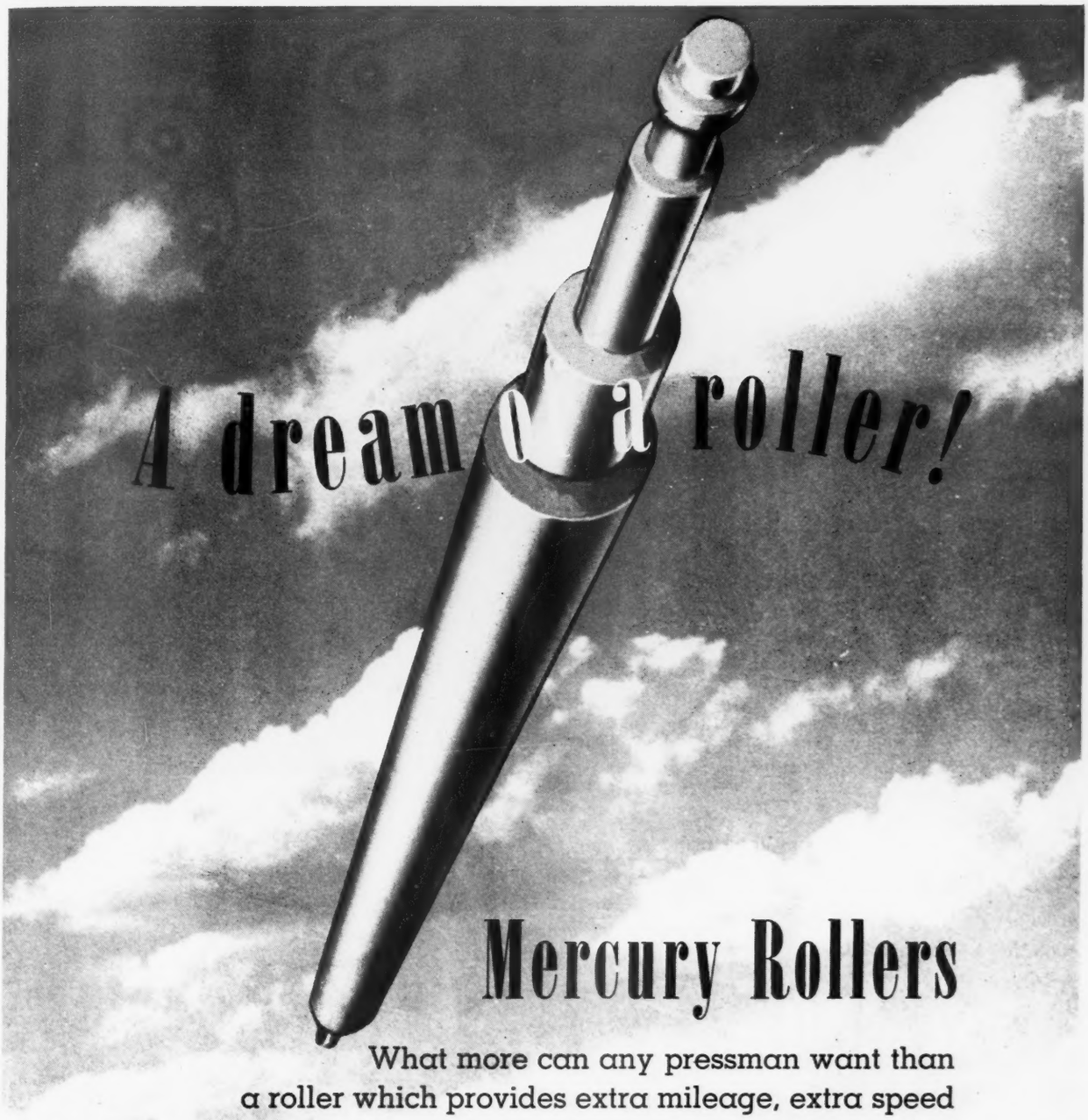
Control is direct, positive and quickly effective. Time is saved, paper wastage is minimized and the pressman can most easily procure the results he desires.



R. HOE & CO., INC.

910 East 138th Street New York 54, N. Y.

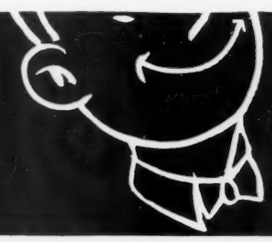
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.



Mercury Rollers

What more can any pressman want than a roller which provides extra mileage, extra speed in makeready, extra ease in wash-up, and extra fine results? Well, mister, here you are — the roller that has everything! They satisfy, satisfy, SATISFY.

MADE FOR ALL GRAPHIC ARTS PROCESSES



RAPID ROLLER CO.

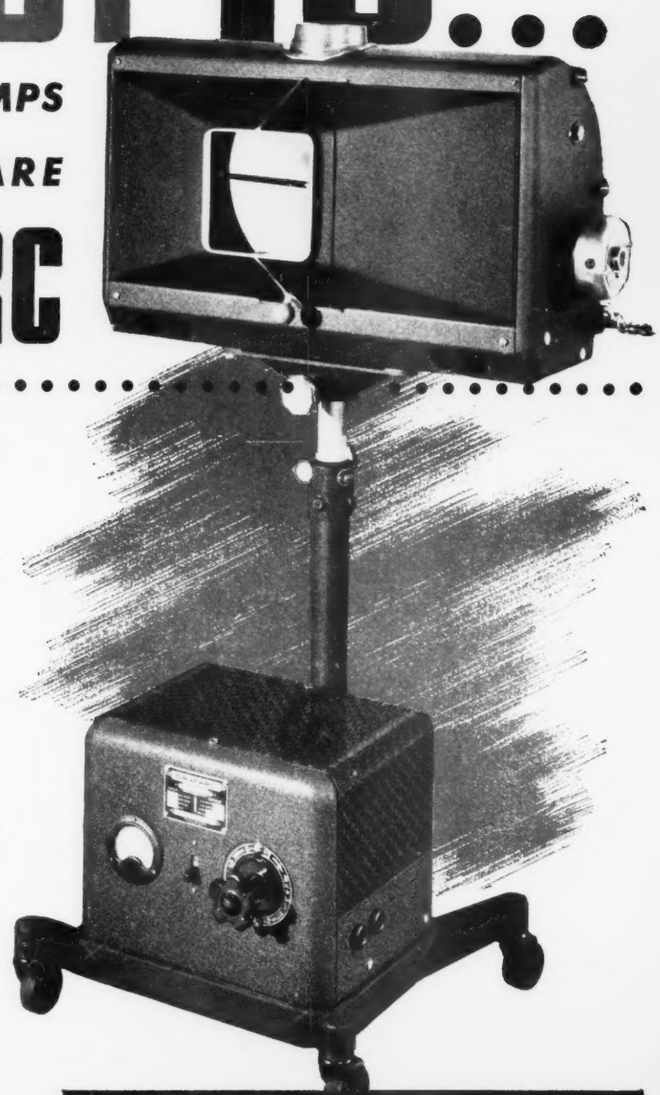
FEDERAL AT 26TH
CHICAGO 16, ILL.

D. M. RAPPORT
PRESIDENT

9 out of 10...

MOTOR-DRIVEN ARC LAMPS USED BY THE INDUSTRY ARE

STRONG GRAFARC



There must be reasons! Here are a few:

★ *RUGGED CONSTRUCTION.* Oversize carriage slide bearings. Large ball bearing motor. Bakelite gears on hardened steel worms. Heavy gauge sheet metal and aluminum cast housing.

★ *MODERN SILVERED GLASS REFLECTOR.* The higher reflectivity of the silvered glass reflector compared to a metal reflector results in approximately twice the light per arc watt.

★ *ARC STEADINESS.* The result of using high intensity carbons in a draft-shielded horizontal trim.

★ *NO VACUUM TUBES OR RELAYS.* The current and voltage of the arc directly control the feed motor speed.

★ *FREEDOM FROM DOT UNDERCUTTING WHEN PRINTING* made possible by the single arc combined with the crossover of the reflected light rays.

★ *MORE EVEN DISTRIBUTION OF LIGHT FOR CAMERA DEPARTMENT.* Uniform illumination on any work size.

★ *EXTREME STEADINESS OF LIGHT VOLUME—CONSTANT COLOR TEMPERATURES.* Eliminates the illumination variable in the accurate control of densities.

Especially designed models for camera and printing frame. Adapters to fit most cameras. Purchase Grafarc lamps NOW! Start important savings. Reap the benefits of better control and improved standards of workmanship.

FREE TRIAL OFFER!

Take advantage of a free trial without obligation to purchase. Because of the Grafarc's low current requirement, the present line supply wiring to your equipment is usually adequate

THE STRONG ELECTRIC CORPORATION
307 CITY PARK AVENUE TOLEDO 2, OHIO

☐ I wish to take advantage of your FREE trial offer on Grafarc Lamps without obligation to purchase.

☐ Please send me free literature and prices on Grafarc Lamps.

NAME_____

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CITY_____ STATE_____

There's a *New*

ATF

KELLY

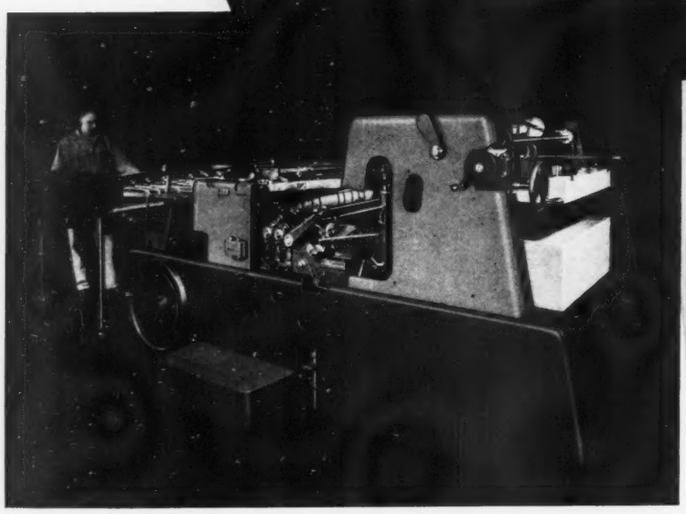
. . . **BIGGER** *than ever*

. . . **BETTER** *than ever*

. . . **FASTER** *than ever*

Nothing pays off like a Kelly

The NEW K



Everything the famous No. 2 would do—the new

KELLY THREE

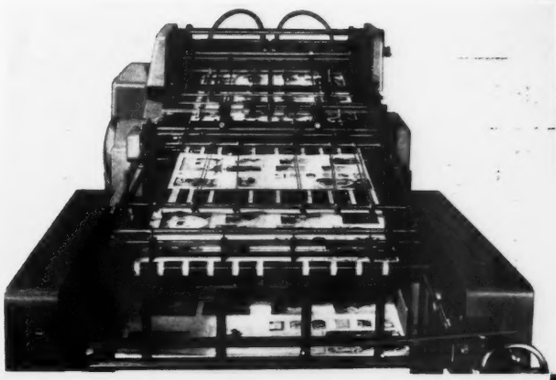
DOES BIGGER, BETTER and FASTER

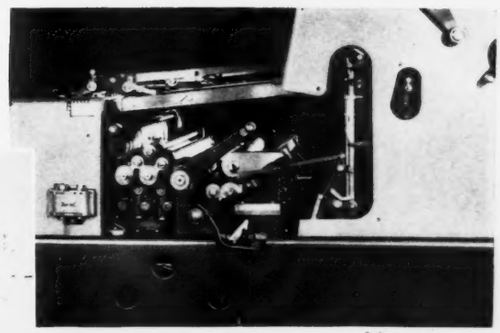
This is a *practical* press, streamlined for utility, safety and more profitable production. So designed for the pressman's convenience that he can get at it easily for normal pressman's adjustments; can control it efficiently from the normal operator's position. Press the starting button, and experience a new thrill from this Kelly's smooth, quiet, effortless action.

First
to tak
less,
boarc
press
roller
on be

KELLY THREE

25"x37" 16 pages 6"x 9" 8 pages 9"x 12"



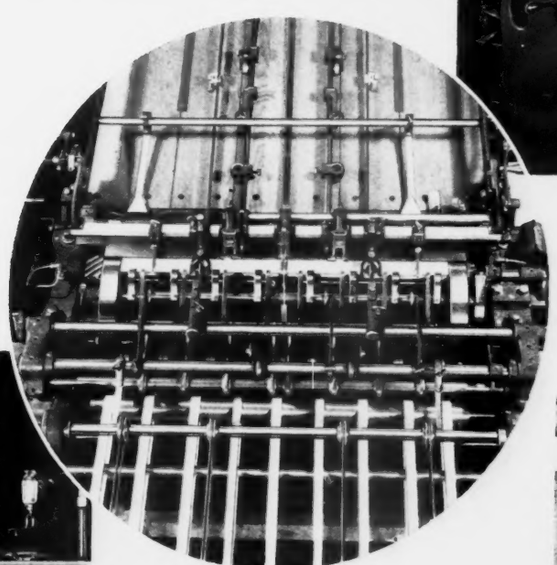


HANDY CONTROLS

Operating controls are centralized within the pressman's convenient reach. The easily read tachometer is at eye level, directly in front of the operator. Select your speed with a simple "FAST-SLOW" knob as easily as turning the knob on your radio.

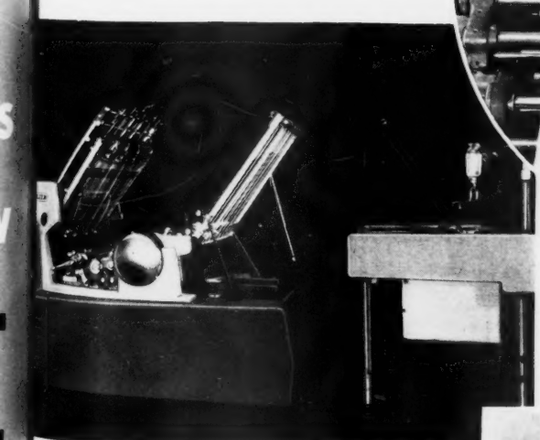
IT'S BIGGER AND 16.8% FASTER

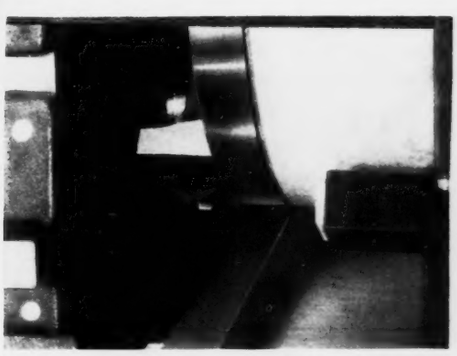
Handles a 25" x 37" sheet; takes a full form of sixteen 6" x 9" pages, or eight 9" x 12" pages, with allowance for grippers and trim. The feeder table takes a 22" pile; the self-lowering delivery dolly handles a 27" pile. Speeds up to 3500 per hour.



AIR-WHEEL TYPE DOUBLE LOAD FEEDER

The air-wheel suction gives a smooth, positive lift to only one sheet at a time. Double feed platforms save much press down time; stock can be hand jogged and lower deck loaded while press is running.



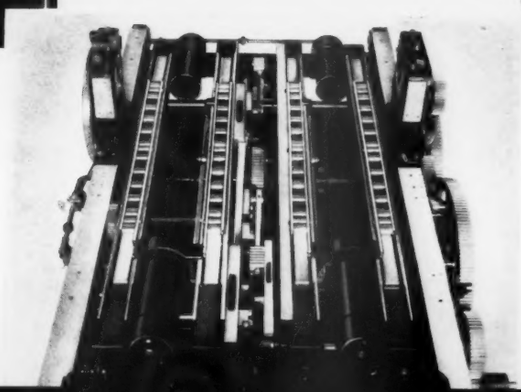


HAIRLINE REGISTER

Quick, easy and superbly accurate. Drop guides and simple pull guides for register are adjustable without stopping press. Sheet slow-down mechanism eases sheets up to guides to prevent rebound.

LOWER INITIAL AND OPERATING COSTS

First cost is thousands less than for presses built to take a 25"x 38" sheet. Hourly operating cost is less, for similar size and quality of work. Feed board and delivery tape frame lift to open the press wide, so a man can easily get at fountain, rollers and cylinder and comfortably go to work on bed and form.



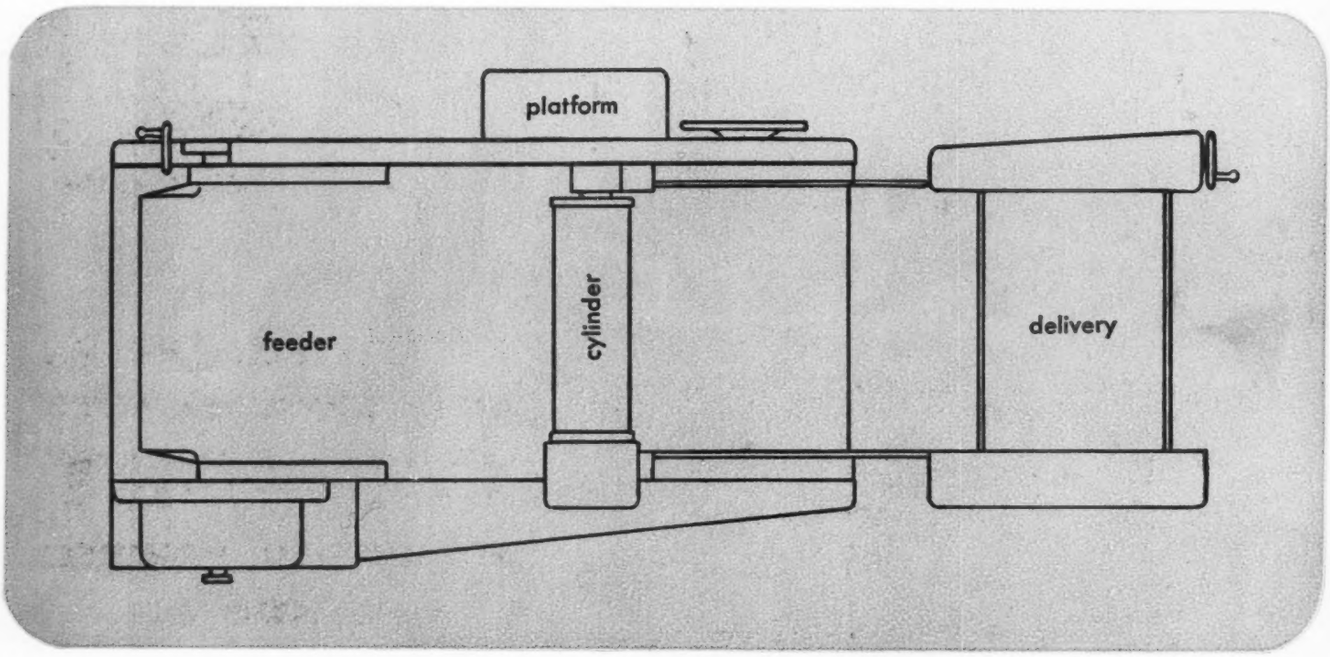
HARDENED STEEL BEARERS

Both bed and cylinder bearers are now made of *hardened* steel, without screw or bolt holes on the surface; consequently there are no weak points the entire length of the bearer. Bed is of welded steel; lighter and more rigid, free from flexing.

NEW WEIGHT DISTRIBUTION

1400 lbs. heavier at bottom, 150 lbs. lighter at top. This new low center of gravity kills vibration and permits increased speed, just as in modern autos.

ATF KELLY THREE



FLOOR PLAN and SPECIFICATIONS

Largest sheet size	25 x 37 inches
Smallest sheet size	8½ x 11 inches
Inside chase (stationary cross bar book chase furnished)	26 x 35⅞ inches
Type bed size	28½ x 37¼ inches
Roller coverage (3 rollers) (plus 5/16 inches between grippers)	18⅜ inches
Roller coverage (2 rollers) (plus 5/16 inches between grippers)	21½ inches
Roller coverage (1 roller and auxiliary) (plus 5/16 inches between grippers)	24 11/16 inches
Lightest stock	Onion skin
Heaviest stock	6 ply (.024)
With special attachments	8 ply (.032)
Feeder capacity	22 inches
Delivery capacity	27 inches
Speed range	2200-3500
Floor space	6 ft. 11 ins. x 15 ft.
Horsepower to drive	1 PH, DC....4; 2, 3 PH....5
Horsepower for pump	1
Net weight	11,500 lbs.
Shipping weight	13,830 lbs.

Motored by Kimble

Thirty-five years ago it took a Kelly to show the way to better work at better profits. Since then Kellys have always been the leaders. But the remarkable performance of the new KELLY THREE tops everything its notable predecessors were able to accomplish. You never before saw such a press as this. Don't be content with the little we can hint at here. Get in touch with your ATF Representative NOW—TODAY—and have him tell you the whole exciting story.

AMERICAN TYPE FOUNDERS

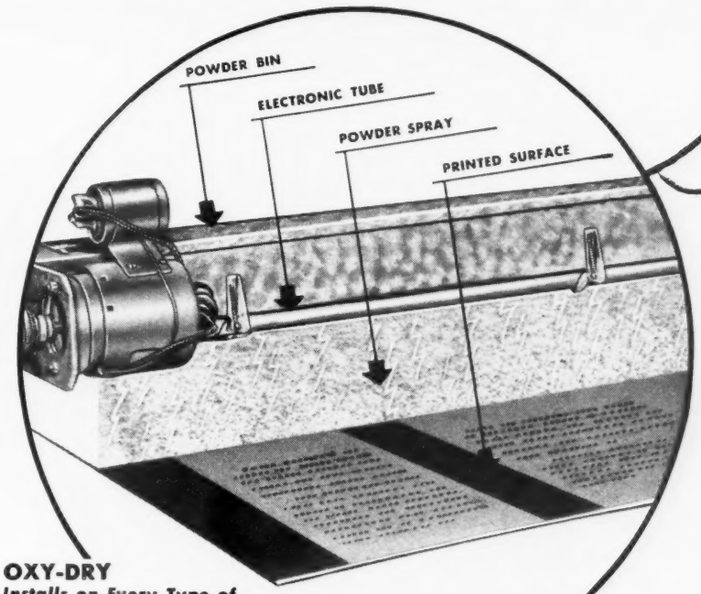
200 Elmora Avenue, Elizabeth B, New Jersey

BRANCHES IN ALL PRINCIPAL CITIES

Manufacturers of Kelly Presses, Little Giant Presses, Chief Offset Presses, Web-fed Offset Presses, Gravure Presses, Foundry Type, Process Cameras. Distributors of Vandercook, Bostitch, Challenge, Chandler & Price, Hamilton, Rosback Equipment for Composing Room, Pressroom and Bindery

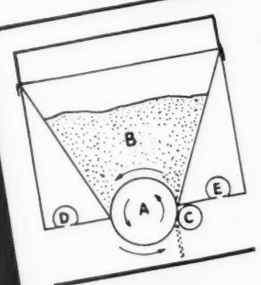
PRINTED IN U.S.A.

DON'T STOP THE PRESSES BECAUSE OF OFFSET!



OXY-DRY
Installs on Every Type of Press . . . Works with Any Kind of Printing Process

HOW IT WORKS



As brass cylinder (A) revolves, anti-offset powder (B) is distributed past electronic tube (C) receiving 10,000 volt positive charge and bonding instantly across freshly-printed surface below. The static electricity (negative electric charge) in the paper is instantly dispelled. Air vents (D & E) set up air curtains, and are required only under extremely drafty shop conditions.

ASSURE FULL PRESS LOAD CAPACITY WITH OXY-DRY ELECTRIFIED POWDER METHOD OF OFFSET PREVENTION

Simply install the light, compact OXY-DRY Electrified Powder SPRAYER permanently in your press delivery and *your offset troubles are over!* This work-speeding, money-saving fact is being demonstrated daily on every type of press, the country over—sheet-fed, high-speed rotary and multi-colored . . . in letterpress, offset.

• • •

The OXY-DRY Electrified Powder process proves daily, in hundreds of exacting installations, that it *prevents offset* and *eliminates static* on *all types of work* . . . including overprint varnish, high-gloss and metallic inks on cartons, boxes, labels and cellulose printing.

• • •

Original *cost*, operating economy, effectiveness of *offset-prevention* and permanent *health factors* of OXY-DRY are so attractive as to amaze you. Get all the facts. Write today for full information applying to *your* type of press and work.

***Write Dept.* E**

OXY-DRY SPRAYER CORPORATION
320 S. Marshfield Ave., Chicago 12, Ill.

OXY-DRY

full-press-delivery offset prevention

The Modern Standard in Plate Molding Machines

THE 600 TON 'PLATEMASTER'

- Equal high efficiency in producing plastic, wax, or Tenaplate electrotype molds, stereotype mats and rubber or plastic plates. Proven by leading platemakers.
- Designed and sold by an organization with real experience in plate molding technique, that knows the platemakers' problems.

SPECIFICATIONS

Floor Size	4' ½" Width, 5' 3" Length
Platen Construction	Meehanite
Pumps	Oilgear
Hydraulic Controls	Oilgear
Closing Time	With 2" opening 2 seconds
Frame Construction	Single Steel Casting
Max. Molding Pressure	600 Tons
Platen Size	26" x 30" x 3½"
Heating Medium	Steam
Ram Diameter	22" solid casting
Weight	15,500 pounds
Motor	5 h.p./1200 r.p.m.
Max. Daylight Opening	3¼"

Write for complete information and list of installations.

WILLIAMSON & COMPANY

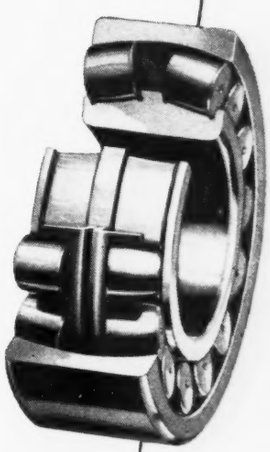
CALDWELL, NEW JERSEY

NEVER TOO MUCH... NEVER TOO LITTLE BUT **ALWAYS** JUST RIGHT

because of TOLERANCE CONTROL

Another reason why industry prefers SKF

Remember leapfrog? How you used to have to skim over just right? Well, it's very much the same thing in specifying bearings. You don't want tolerances too great... and you don't want tolerances closer than the job demands. But you want to be sure that tolerances are *right*... are *always* properly controlled... *always* meet established standards. SKF adheres rigidly to these standards. Ceaseless vigilance in every stage of production assures complete control of tolerance throughout the entire manufacturing cycle. You can always be sure that any SKF Bearing will exactly meet your requirements... and will meet them again and again. Never forget, either, that *tolerance control* is only *one* reason why SKF Bearings will help you build equipment which, through smooth, economical performance, helps develop greater acceptance for your product. **SKF** INDUSTRIES, INC., PHILADELPHIA 32, PA.



SKF
Ball and Roller Bearings

8 REASONS WHY SKF IS PREFERRED BY ALL INDUSTRY

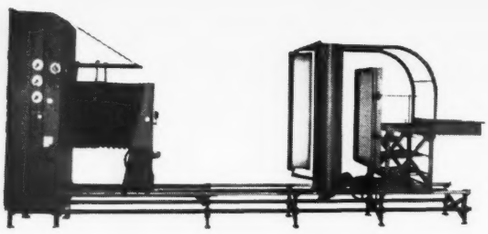
INTEGRITY · CRAFTSMANSHIP · METALLURGY · [redacted] · SURFACE FINISH · PRODUCT UNIFORMITY · ENGINEERING SERVICE · FIELD SERVICE

Inventors and Pioneers of the Self-Aligning Ball Bearing and Spherical Roller Bearing

7050

THE CHEMCO CAMERA

NO DELAY... NO WASTE... NO COSTLY FOOTWORK



Chemco cameras save your time and money . . . *every day!* They minimize operator fatigue caused by needless walking to and from the darkroom: *An entire series of exposures can be made without a single trip to the darkroom!*

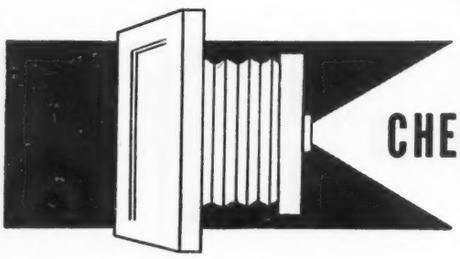
Outside controls, special roll film cut-off, and many other Chemco features banish unproductive camera drudgery . . . assure easy and certain precision negative work. Shooting is *never* delayed with a Chemco camera, even with a strong light in the darkroom.

Two screens may be in the camera simultaneously. Either is positioned by a simple turn of a control handle. For line shots, both screens are merely returned to storage position.

Chemco cameras can bring unequalled advantages to your camera department. Write for complete information now!

EXHIBITOR
GRAPHIC ARTS EXPOSITION
CHICAGO · SEPTEMBER 11-23 · 1950

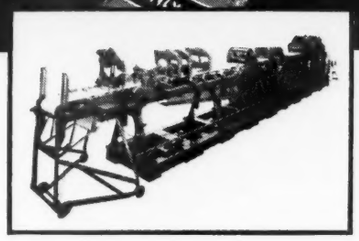
chemco
PHOTOPRODUCTS COMPANY INC
GLEN COVE N Y



CHEMCO PHOTOPRODUCTS COMPANY, INC.

Factory and General Offices, Glen Cove, N. Y.

Branches: New York, Chicago, Detroit, New Orleans, Boston, Atlanta, Dallas



Magic... IN ONE QUICK PASS!

Maybe it'll be a bus ride or a seat at the movies . . .

Maybe money in a pocket or a spin on a merry-go-round; maybe just pure glamour.

That's the kind of magic people find in tickets and tags, in labels and checks and cartons and the countless other kinds of specialty print jobs. They're *more* than just slips of paper or cloth to the millions who use them every day.

They're more than that to a printer, too, when he whisks them through an inline New Era Multi-Process Press in *one quick pass.*

They're a source of *pride* — because every job will have good distribution . . . uniform impression . . . absolutely accurate register.

They're a source of *satisfaction* — in a job done quickly and well, with minimum make-ready, and with an excellent profit return.

The amazingly versatile New Era Press will print, perforate, punch, slit, number, die-cut, score, cut, reinforce tags, etc. If you'd like to learn more about it, write today for Bulletin 11.

NEW ERA

MANUFACTURING CO.,

375—11th Avenue, Paterson 4, New Jersey

BEFORE YOU BUY SAW TRIMMERS, CHECK THE NEW MORRISON

MODEL 3-A or MODEL 45!

. . . Surest Start to Composing Room Savings

"Wish I had seen the Morrison *first*" — is the lament we have heard from new owners of saw trimmers. The words come from men who, too late, checked the many new features of Morrison Saw Trimmers at some friend's plant — and quickly realized the benefits in labor and time saving, more accurate work, greater versatility and usefulness so easily proven with a Morrison.

If you're interested in lower composing room costs, you can't afford to miss reading a new Morrison Saw Trimmer folder entitled "ESSENTIAL TO COMPOSING ROOM ECONOMY." Write for your copy today!

MORRISON Model 45 with Pistol Grip Saw Blade Adjustment

Model 45 features "Trigger-Speed" saw adjustment, 75-pica gauge and workholder *(holds the work behind the gauge for easier handling, visibility, accuracy)*; Available with extension gauge, miter gauge, miter vise saw grinder, trimmer grinder, and many other standard and DeLuxe features. Table, 18" x 27". Larger Model, 3-A, 30" x 18".

CHECK — Only Morrison Saw Trimmer gives you ALL these exclusive features:

- Miter Gauge with Point Adjustment
- Patented Universal Saw Blade, with Saw Grinding Attachment
- Right and Left Hand Mitering — all Miters face up
- Miter and Lineup Gauge
- Any Angle Gauge
- Automatic Index for Plate Cutting and Trimming Positions
- Swing out 135 Pica Extension Gauge
- Advanced Clamping Method

Symbol of Operating Economy

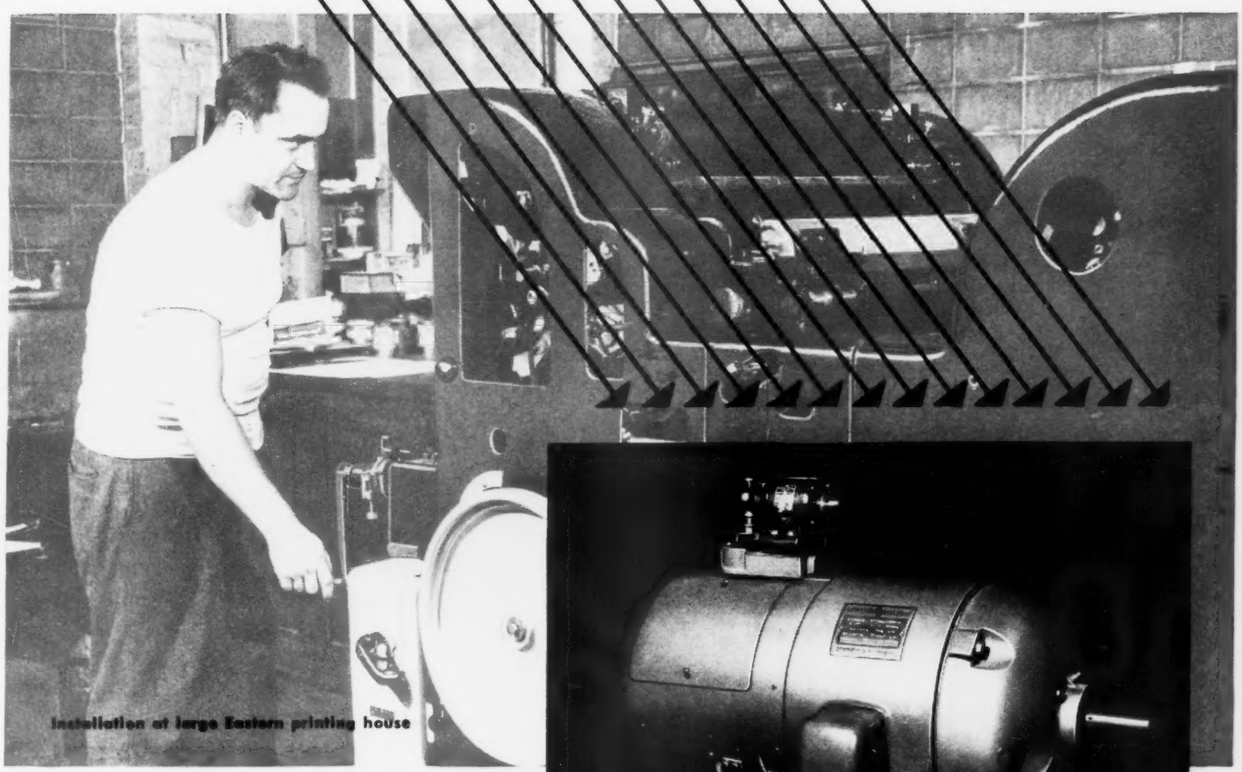
THE MORRISON COMPANY MILWAUKEE WIS.

THE *Morrison* COMPANY

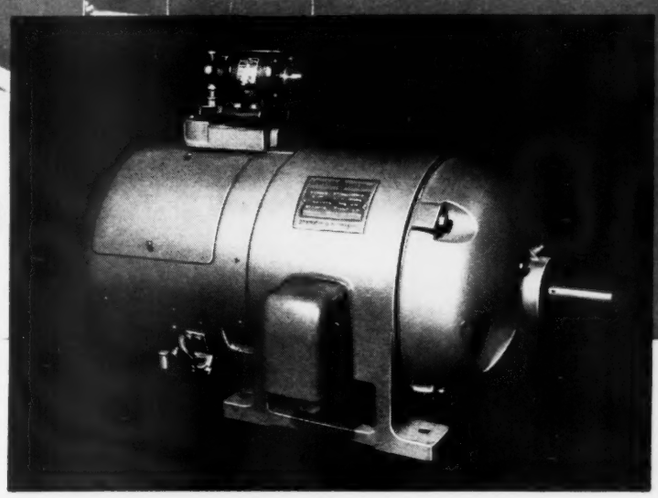
PRECISION MACHINES FOR THE GRAPHIC ARTS INDUSTRY

125 W. Melvina Street, Milwaukee 12, Wisconsin

NEW ADJUSTABLE-SPEED DRIVE FOR OFFSET



Installation at large Eastern printing house



G-E press-mounted system gives increased production at LOWER COST

Now the time-tested adjustable-speed (Type ACA) motor with built-in preset speed adjustment is combined with pilot motor and control unit to give the offset printing industry these important advantages:

OFFERS d-c speed characteristics with a-c power advantages; holds virtually the same smooth speed under different press loads.

ALLOWS a wider printing range. Speed ranges (printing ranges) of 3-1, 6-1, and 20-1 are stock items, available immediately. Slowdown and quick stopping features are also available.

PROVES less expensive on all counts:

1. Initial cost is equal to or lower than other drives.
2. Installation cost is much lower since the size of the control unit is but 10% the size of those on other press drives, and allows press mounting.
3. Maintenance cost is cut to a bare minimum since the control consists only of line contactors.

For immediate information concerning this packaged drive system, contact the printing specialist in your nearest G-E office or write now for our bulletin GEA-4883. Apparatus Department, Section 653-6, General Electric Company, Schenectady, N. Y.

GENERAL ELECTRIC

653-6

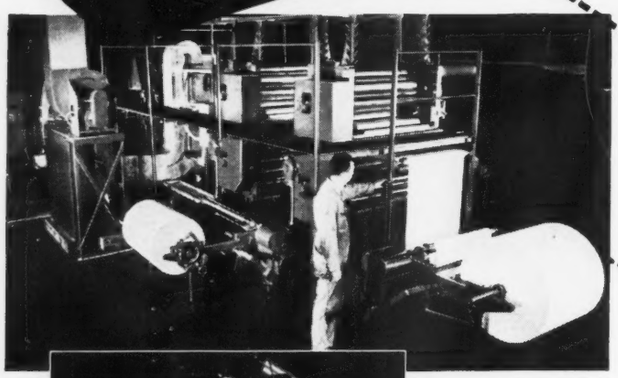
A Edição Portuguesa do Reader's Digest, também...

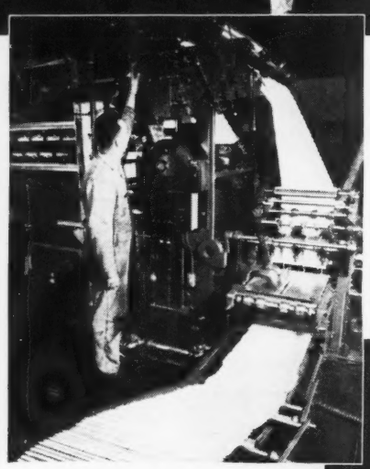
..Another Foreign Edition ATF-WEBENDORFER

This makes the *third* ATF-Webendorfer press built especially for the production of foreign editions of Reader's Digest. It is a two-unit press with folder and sheet delivery, which will print from two rolls. The 35-inch web speed exceeds 400 ft. per minute. The press delivers 22¾″ cut sheets folded to Reader's Digest size; makes a former fold and a double parallel fold and delivers two up of the Digest size 16-page signature, or 32-page total, two colors to each side. When printing from two rolls, it delivers two 32-page signatures, one color each side. Capacity is 12,000 to 14,000 double parallel fold signatures per hour.

The press handles standard offset stocks up to 60 pound, as well as machine coated papers. It uses special quick-drying inks and is equipped with special heat-set ink rollers and a Unitron Electric Dryer. After drying, the web runs through low-temperature cooling rollers. A Reliance variable speed converting unit, converting AC current to DC, assures smooth operation.

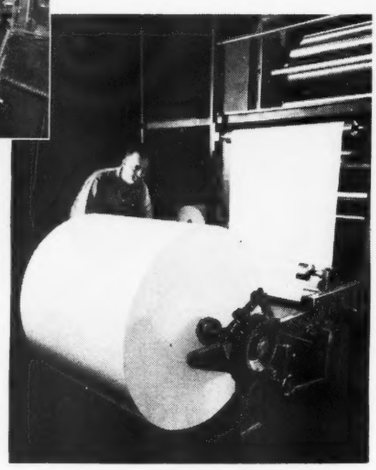
Like all other presses bearing the ATF-Webendorfer name, this press delivers quality products at exceptionally low costs.



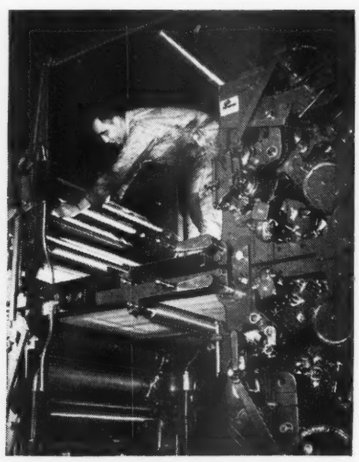


Stop and jog buttons are conveniently located for feeding the paper to the press.

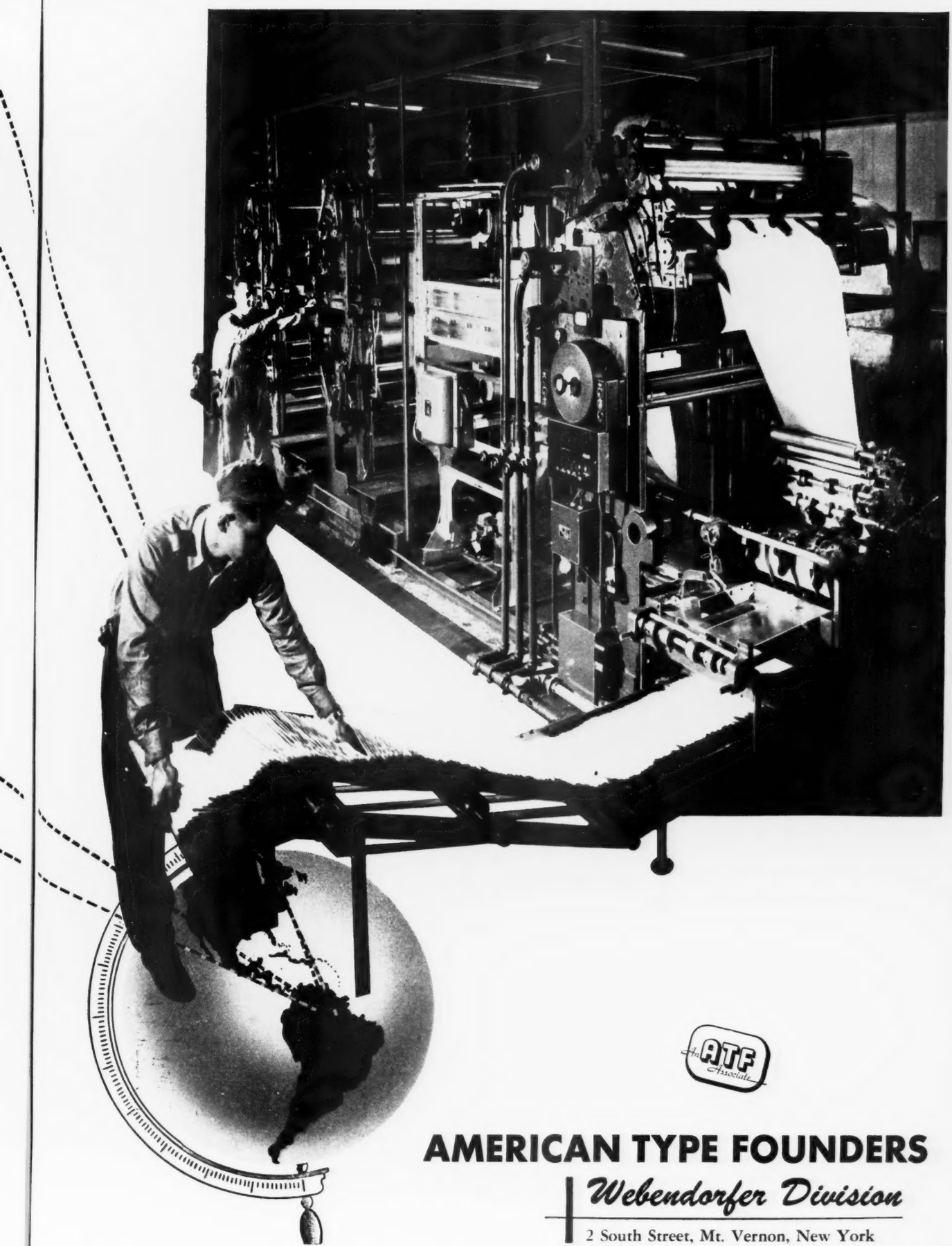
Adjusting Compensator to line up sheet heads.



Adjusting variable drive to control feed of paper.



Ink fountains, with closely spaced keys, are easily reached to provide precise control.



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AMERICAN TYPE FOUNDERS

Webendorfer Division

2 South Street, Mt. Vernon, New York

MAKING NEWS HAS BEEN A GOSS TRADITION FOR OVER 65 YEARS

■ Incorporating the imposing list of ten *"famous firsts"* into the Headliner...GOSS has produced a press with unparalleled ease of operation, maximum flexibility of color production, top quality printing and more efficient, safer operation at high speeds. All these *"firsts"* were the result of developments realized through more than 65 years of practical experience in researching, designing and building traditionally good printing equipment. Depend on GOSS to produce the finest...*first!*

THE GOSS PRINTING PRESS CO.
1535 S. Paulina St., Chicago 8
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it's **GOSS** *again*

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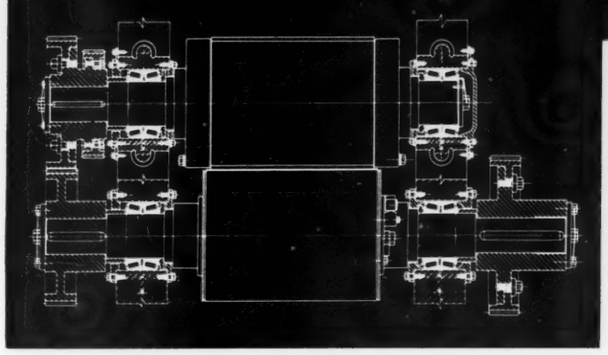
- ***First*** with FOLDED-EDGE-FORWARD DELIVERY
- ***First*** with "Y" TYPE SUB-STRUCTURE for EXTREME RIGIDITY

headlining

Goss Headliner equipped with Timken bearings.



Application of Timken bearings on plate and impression cylinder shafts.

The Goss Headliner is making news these days in some of America's largest newspapers. It's one of the most talked of presses in the field of the whirling webs, combining as it does to such a great degree, the three most necessary qualities in a modern newspaper press—speed, precision, economy.

To help assure these qualities, the Goss Printing Press Company follows a formula it has used for years; this calls for the use of Timken tapered roller bearings on plate and impression cylinder shafts and at other important positions. It means faster, smoother operation and better printing with friction eliminated; wear kept to a minimum; moving parts held in constant alignment; radial, thrust and combined loads carried with a wide margin of safety. No matter what type of printing presses you build or buy make sure they are equipped with Timken bearings. Look for the trade-mark "TIMKEN" on every bearing.

THE TIMKEN ROLLER BEARING COMPANY
CANTON 6, OHIO
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NOT JUST A BALL ○ NOT JUST A ROLLER ▭ THE TIMKEN TAPERED ROLLER ▭ BEARING TAKES RADIAL ◎ AND THRUST →◎← LOADS OR ANY COMBINATION

Uncle Mat says--Prominent Newspapers from Coast-to-Coast use *Matrix Contrast Service*

LARGER NEWSPAPERS USING MATRIX CONTRAST SERVICE

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Hartford Times
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Augusta (Ga.) Herald
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Boston Post
Camden Courier-Post
Binghamton Press
Buffalo Courier-Express
Buffalo Evening News
New York Herald Tribune
New York Morning Telegraph
New York Daily News
New York Times
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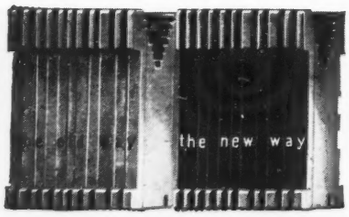
St. Louis Globe-Democrat
St. Louis Post-Dispatch
St. Louis Star-Times
Cincinnati Enquirer
Cleveland Plain Dealer
Houston Post
Beaumont Enterprise
Milwaukee Journal
Los Angeles Examiner
Sacramento Bee
San Diego Daily Journal
San Diego Union & Tribune-Sun
San Francisco Chronicle
Portland Oregon Journal
Vancouver (B.C.) Sun



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Matrix Contrast Service

The ABC of OFFSET

For Letterpress Printers

By George Jos. Lenzer

I.—INTRODUCTION

WHATEVER it is, there is something interesting about Offset which causes the Letterpress printer to investigate the process and to install equipment. His initial success in the venture is dependent upon the extent of knowledge acquired before he makes any investment.

He must be reminded that Lithography has come a long way since the day when Alois Sennefelder discovered the principle that grease and water will not mix.[2] The transition from the Stone Age, when the printed impression was lifted from the face of a polished limestone; through the development and use of zinc plates, and the rotolithographic press; to the early 1900's and the virtual birth of Offset, was gradual.

Since the development of the Offset process, changes have been made in rapid succession, not alone in press design and operation, but in every stage from the preparation of copy, and the scientific use of light, through the highly specialized techniques of photography, chemical manipulation, the skill of trained artists and dot etchers, to the selection of one or more of the different kinds of printing plates.

From the preceding remarks and facts, it should be evident that the overall know-how of the Lithographer cannot be acquired in six weeks, or months.

When properly organized, Lithography is a self-contained industry; embracing departments for correct copy preparation, photography and plate making, presses, cutters and binding, folding and finishing, and requiring few outside services.

These facts may frighten those who have installed or contemplate the installation of Offset equipment. If they must rely on plate makers and others for specialized services, their fears can be alleviated, because much of the necessary know-how is provided with the services rendered.

At this point, it is believed to be advisable to mention that the most successful combination shops are those where the Letterpress departments are separated from the operation of Offset-lithographic departments. Separately operated departments can be made to cooperate splendidly. But, where the two departments are combined maximum results usually cannot be obtained because of the average craftsman's inability to become proficient in both processes. This is another demonstration of the value of specialization.

Purpose of Series

The purpose of this series of articles is to present in lecture form, a *short cut* course in the fundamentals of the process of Offset-lithography. Wherever possible, illustrations will be used throughout the series, in order to convey graphically the important procedures in each operation.

Frequent use of the term "process" will be noticed. This terminology is necessary because each separate operation is basically an individual process. Offset-lithography is often called "Process Lithography" due to the many different processes involved in its production.

Because, Offset-lithography is not the simple process it is so frequently claimed to be, it is important that the fundamentals and the many pitfalls, headaches and stumbling blocks associated with the process be pointed out.

This series will teach, simply and understandably that:

(1.) Offset-lithography is an important process.

(2.) Grease and water will not mix.

(3.) Chemistry, physics, mechanics, manual skills and guts are prime factors in successful Offset-lithography.

(4.) Many variables exist in Offset.

(5.) Economically, Offset is a self-contained printing process.

(6.) Offset is a versatile printing process.

(7.) Great care must be exercised in preliminary preparations.

(8.) Art appreciation must be developed.

(9.) A new vocabulary must be acquired.

(10.) Necessary know-how is not acquired in weeks or months, and must be gained by experience and training.

(11.) To pay dividends, Offset equipment must be used to its utmost capacity.

(12.) Striving for successive improvement in every job, is important if success in Offset is desired.

Letterpress printers, entering the field of Offset, must become accustomed to:

(1.) Strange odors peculiar to lithography.

(2.) Identifying different processes.

(3.) More use of color.

(4.) Reproducing a great variety of art and composition.

(5.) Using more original hand lettering and typewritten copy.

(6.) Being more critical of work produced.

(7.) Revising existing systems of job estimation.

(8.) Work in close harmony with competitors.

(9.) Ready adoption of new developments affecting the progress of Offset.

THE ABC OF OFFSET

Printing Equipment Engineer **is pleased to announce the first of a series of articles entitled *The ABC of OFFSET for Letterpress Printers*. The entire series has been written and illustrated by George Jos. Lenzer, Cleveland artist and technician.**

We want to explain that the series will be just what is implied by the title. It has been prepared for the Letterpress printing executive who now supervises or who contemplates installing an Offset Department and may wish to know more about the process itself.

Deliberately, Mr. Lenzer has placed himself in the role of teacher before the reader. This has been done at our request. As such, *Printing Equipment Engineer* believes it will accomplish its purpose.

Since the Letterpress printing executive is familiar with Relief printing, it will be obvious to him that as the series progresses, there is considerable new knowledge to be absorbed in getting acquainted with the so-called Planographic printing process.

[1] In offset-lithography, printing is done in the press from a plate wrapped around a cylinder. The surface of the plate, to all intents and purposes, is planographic. The process, as stated above, is based upon the principle that grease and water will not mix; that is, the printing areas of the plate in the printing press are ink (grease) receptive and are also water-repellant, while the non-printing areas of the plate are water-receptive and are ink (grease) repellant.

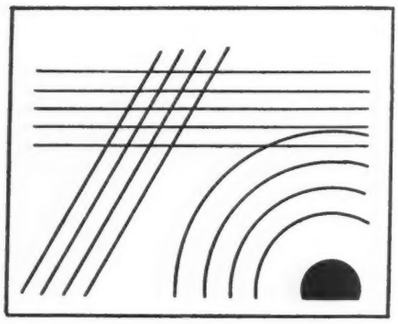


Fig. 1a.

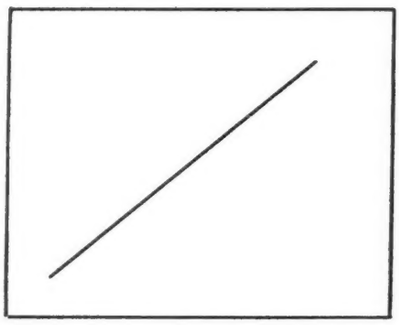


Fig. 1b.

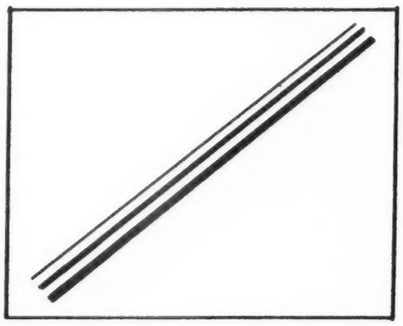


Fig. 1c.

(10.) Having plates made according to specific process rather than friendship or favoritism.

(11.) Specializing in certain classes of work.

(12.) Developing new markets for Offset.

(13.) Taking a lot of unreasonable gaff from too critical and uninformed customers.

(14.) Teaching customers the importance of properly prepared copy, and its relationship to the photographic process.

(15.) Entering competition with others, who already possess the necessary know-how and experience.

Essentiality of Good Copy

The production of fine grade Offset-lithography requires, first of all, *good copy*. Preparation of original art or copy is not a normal function of the printer or lithographer. However, on some copy, the art work, retouching or separation drawings and overlays, are poorly executed or incomplete, and urgency of the delivery date may require immediate corrective measures. Here a general knowledge of copy preparation, drafting and working expedients is desirable.

Satisfactory copy closely approaches the desired appearance of the final impression.

Suitable copy for black and white reproduction must be such as to meet certain reproduction requirements for either Line or Halftone photography.

The Line Drawing

It can be said that reproduction by Line photography, is reproduction by extreme contrast. Copy for this process may be typographic reproduction proofs, typewritten copy, pen and ink or dry-brush drawings, with opaque black character and detail against a white background. (See Fig. 1.)

Because of differences in the methods for transferring ink from printing plates to paper, each process requires the use of distinctive equipment, mechanics and techniques; all of which are based on one principle.

The principle is that a design must be composed of, or be reduced to a series of lines, dots and markings that can be made to stand apart so that they may be inked.

Originally, the artist would draw directly upon a stone or zinc plate with a greasy ink and crayon. After chemical treatment, etching and desensitizing, all lines and crayon effects stood out in distinct contrast against the background.

The modern methods for making offset plates are quite different, but they effect the same result. Through photomechanical procedures, the design is made to stand out in the same distinct contrast against the background.

Appreciation of the effect and possibilities of lines is an essential requisite for a comprehension of the reproductive processes; and so the accompanying illustrations exemplify the construction of Line drawings for reproduction. (See Fig. 1.)

Fig. 1a represents an artist's design. All of the curves, angles, and horizontals were achieved by drawing simple pen lines of relatively uniform thickness. In Fig. 1b is seen a representation of this simple line.

Any line that can be drawn with a pen and ink can be reproduced, no matter how thick or thin, or whether curved or straight. The lines may be of different thicknesses as illustrated in Fig. 1c, with a combination of such lines in a design as presented in Fig. 1d.

In Fig. 1e are shown how shadings of gray are produced by combining lines in parallel, of varying thicknesses and broken into dots and dashes. With a planned technique of pen and ink rendering, an artist can produce any degree of shading desired. Thus was created the simple illustration in Fig. 1f.

Frequently, line drawings are produced in which are incorporated certain kinds and classes of mechanically or manually applied shadings or tints. In these instances, the medium used becomes a determining factor in the reproduction process. The drawing itself, generally made in outline with lines of relatively uniform thickness, is called a Key Line Drawing. Solids may be filled in as needed.

Tints

In Offset, like Letterpress printing, tints play an important part in the reproduction and printing of photographs and other illustrative material.

Tints are of many kinds, natures and forms, and are obtained in as many different ways, either photographically, manually or mechanically.

Continuous tone tints, such as those appearing on snap shots, studio, or commercial prints, are of varying degrees of density, in a continuous range from the highlights to the deepest shadows. These tints give form, shape and character to the photographic image of the actual subject, person, thing or scene.

The artist, in creating an illustration, adds form, shape and character to his work, by utilizing tint tones, in varying degrees of light and shade; applied with

Fig. 1d.

Fig. 1e.

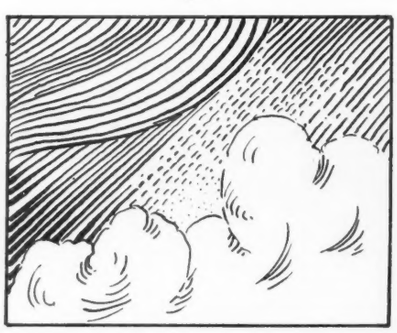


Fig. 1f.

some form of pigment, black, white or color, via pen and ink rendering, charcoal blending, crayon, splatter effects and air brush spray.

Where illustrations are of key line rendering only, the necessary character, form or shape can be applied manually, by affixing mechanical tints to the original art work, photographic negatives or positives; or by the manually operated shading machine, tints of many kinds, patterns and styles, can be applied by the transferral of an inked image of the selected tint, to the original drawing, negative, positive or the printing plate.

Each kind of tint, photographic, mechanical or manually applied has its own advantages, disadvantages and limitations, and must be given individual attention and consideration, when true printed reproduction is required.

Following are a few examples of tints with which the Offset printer must become acquainted:

1. *Continuous Tone Tints* in photo prints, negatives or positives (Fig. 2a) may be reproduced photographically, in prints of the same size, enlarged or reduced without any appreciable alteration in tonal density, detail or character of the original.

2. *Halftone Screen Tints* (Fig. 2b) are those obtained photographically, by the placement of a cross-rule line halftone screen between the lens and in close proximity to the light-sensitive material. Interference of the halftone screen, causes the light passing through to be broken up into regularly spaced beams of light, which when striking the sensitive material, forms a photographic image of the original, in which the continuous tone tints are broken up into geometrically spaced dots of varying sizes.

3. *Patent Mechanical Shading Tints*, (Fig. 2c) are those obtainable from artists supply houses. They are transparent sheets of plastic material, upon which are printed overall tones of geometrically spaced dots of uniform size. Being coated with a self adhesive material the transparent sheet can be affixed to certain designated areas . . . then by cutting to established guide lines, the film can be stripped from the portions where no tint is desired.

4. *Mechanical Shading Machine Tints*, (Fig. 2d) are those obtained by transferring an inked impression of geometrically spaced dots from molded gelatine screens, to some other specially prepared or treated surface, such as the original art work, photographic negative or positive, or upon the printing plate itself. The machine itself is so constructed, as to permit micrometrical adjustments of the attached screen, so that variation in dot sizes can be obtained by slight shifting, of the screens. Tints of this kind are most commonly known as "Ben Day Tints".

5. *Crayon Tints* (Fig. 2e) are manually applied upon a rough textured and hard surfaced paper, or upon coarse grained lithographic plates, Crayon tints are best reproduced at same size, whether photographically or lithographically imprinted.

6. *Splatter Tints* (Fig. 2f) are those which are manually applied to original art work or to the specially treated print-

Fig. 2a.—Photographic continuous tone tint (enlarged).

(In order to print these two blocks it has been necessary to use 133 line halftone screen in the engraving. Please consider them as being continuous tone—not screened—illustrations.)

Fig. 2a.—Photographic continuous tone tint (same size).

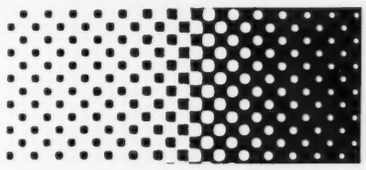


Fig. 2b.—Photomechanical halftone screen (enlarged).

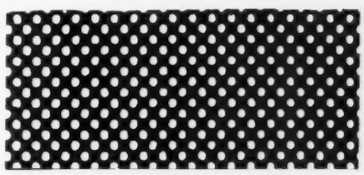


Fig. 2b.—Photomechanical halftone negative (enlarged).

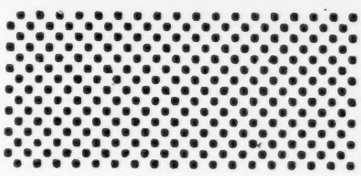


Fig. 2b.—Photomechanical halftone positive (enlarged).

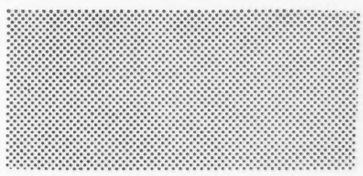


Fig. 2c.—Transparent base, self-adhesive mechanical screen tint (enlarged).

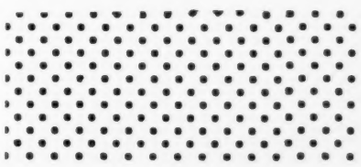


Fig. 2d.—Mechanical shading machine screen tint (enlarged).

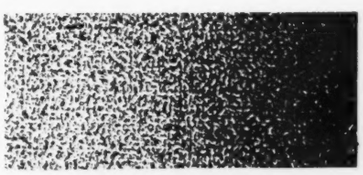


Fig. 2e.—Crayon tint (same size).

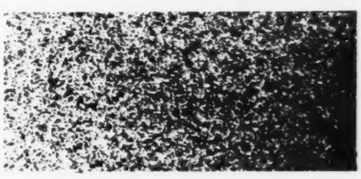


Fig. 2f.—Splatter tint (same size).

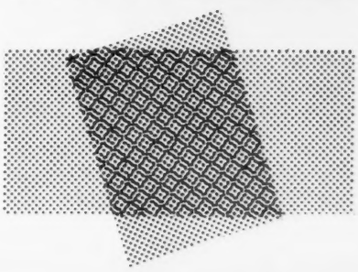


Fig. 2.—Moire' pattern effect obtained by crossing a tint at one angle with another tint at a different angle.

ing plate. Application is possible in different ways, most common of which is the following: Areas upon which no tint is wanted are protected by masking with protective paper, or some form of staging solution. A small brush, such as a tooth brush is dipped into the required pigment.

The inked brush is then held in one hand, bristles upward. With the other hand, a hard, thin object such as the back of a knife blade, is drawn backward through the bristles causing them to spring forward. It is this springing

action which throws the pigment upon the prepared surface, in a myriad assortment of odd sized dots. Tints of this nature reproduced best at same size. Enlargements will cause the tint to become larger and coarser, while size reduction causes the tint to close up and become heavier or more dense than it appears to be in the original.

Newer Methods

The Bourges Method is a recent development. Tints obtained by this method are photographically produced by the halftone process. Its main advantage is that colored transparent films (Colotone or Solotone) are affixed as overlays, from which selected areas of incorporated color can be removed or intensified, effecting color separations and other desirable features.

Among the newer developments for obtaining tints and other advantages are the *Kodak Fluorescent Process*, *Kemart* and *Fluorographic* methods. Each has its own distinction and manner of procedure for the accomplishment of desired results. They all require specific treatment by the creative artist or copy preparer, in the employment of fluorescing materials and pigments. And each method requires special lighting, photographic equipment and manipulation.

From the foregoing, it is evident that a simple line drawing, retouched photograph or colored sketch can pose many reproduction problems to the uninitiated, and should be closely scrutinized and analyzed before placing into production.

Line Shot

A photographic negative of a line drawing is called a Line Shot, and is produced in a manner similar to the production of a continuous tone negative.

(To be Continued)

Cutler-Hammer Branch

Cutler-Hammer, Inc., has announced the opening of a sales office in Dayton, Ohio. P. L. Erickson will manage the office as a branch of the company's Cincinnati district sales office. Address of the newly established sales office is 410 W. First St., Dayton, O.

Flat Plate Solidifying and Finishing Machine

A MACHINE that solidifies flat electrotypes mechanically and shaves the back to tolerances of 0.0005 in., has been announced by C. B. Cottrell & Sons Co. Known as the Cottrell Flat Plate Solidifying and Finishing Machine, the dual operation is achieved by a combination of pressure hold-down rolls, a hurdy-gurdy roll, and a fixed shaving knife.

Manufacturer states, the heavy construction of the machine eliminates measurable deflection and makes possible the accuracy of 0.0005 in. In operation, the plate is held down firmly on a moving table. A rotary hurdy-gurdy roll solidifies the backing metal and the back of the plate is shaved by the fixed knife. Throughout the operation, the plate is held down flat by a series of spring-loaded, hold-down rolls.

Sponsor states the hurdy-gurdy roll may be raised away from the plate, permitting use of the machine for finish-shaving only or it may be lowered to a maximum penetration of 0.030 in. below the plane of the finish-knife edge. Controlled operation is provided by a hydraulic drive. Other features include hand wheels and a micrometer gauge and dial. Sponsor also states that for those who wish to put pre-makeready in the plate, it is possible to cut a face mat, apply it to the plate and impress it in the plate as it is passed through the solidifying and finishing operation.

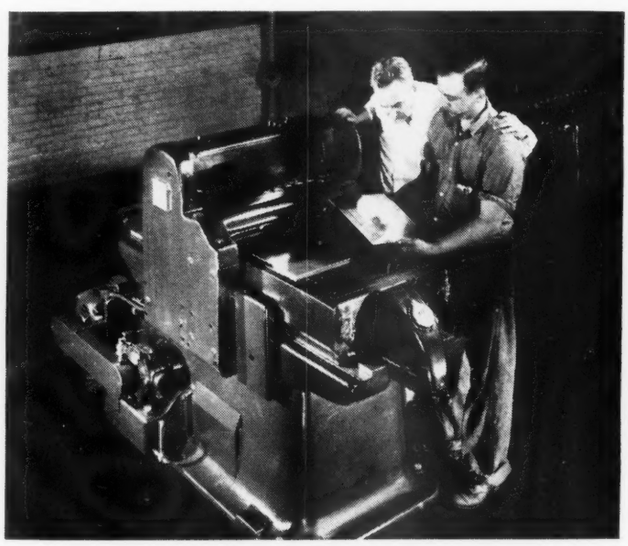
Training Course in Foremanship

AN intensive course on foremanship problems of the printing industry, with expert speakers from various areas of the field, will be held June 19-24 at Rochester Institute of Technology, it has been announced by Byron G. Culver, head of the RIT Printing and Publishing department, Rochester, N. Y.

A similar course was held for the first time last June, when 25 individuals from 10 states registered for the two-week session. Culver said the consensus of opinion last year was that the course would be better concentrated in one week, a change which has been made for the 1950 program.

Continues Presidency

Immediately following announcement of his election as executive vice president of Lanston Monotype Machine Co., A. E. Giegengack stated he would continue as president and general manager of the Sixth Educational Graphic Arts Exposition. He also stated the executive committee of the Exposition Corporation, at its meeting on Thursday, January 26, confirmed his appointment of Russell H. Herrell as his assistant to handle administrative details under Mr. Giegengack's direction. Mr. Herrell was associated with Giegengack for 14 years while he was Public Printer of the United States. Herrell has taken a leave of absence from the GPO.



Cottrell Flat Plate Solidifying and Finishing Machine which, it is claimed, mechanically solidifies and shaves an electrotype in one operation within 0.0005 in. One of the machines was used to make the electrotype from which this illustration was printed.

EQUIPMENT & SUPPLIES

If you wish additional information concerning equipment, supplies and or technical literature, please make your request to *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

G-E Generator Bulletin

AN eight page, two-color bulletin on Tri-Clad high-speed synchronous generators has been issued by the General Electric Co. Designated as bulletin GEA-5415, it deals with generators for standby, portable and prime source power in various fields of application. Well illustrated, the bulletin describes Tri-Clad protection, and tells about construction features, mechanical modifications, and performance data. Ratings from 12½ k.v.a. to 1250 k.v.a. and speeds from 1800 r.p.m. to 514 r.p.m. are covered.

Hydro Power Pack

DESIGNED to convert any lever paper cutter to a hand-clamp hydraulic power paper cutter, is the Super Speed Hydro Power Pack announced recently by Super Speed Printing Machinery, Inc. The unit consists of a hydraulic package which is positioned under the table of the cutter. Activated by a 2 h.p. motor, the Hydro Power-Pack is equipped with a two-handed safety device.

The operating lever, states sponsor, will not move the knife until rendered operative by means of a safety release. To activate the unit, both hands of the operator are occupied, claims the sponsor. Standard equipment includes the two-handed safety device, mounting base for unit and motor, instructions for installation and operation, and hydraulic oil necessary to put the unit in operation.

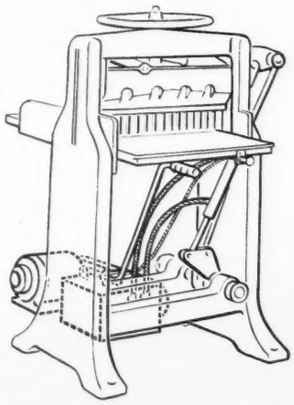


Diagram shows front view of a lever paper cutter with the Hydro Power-Pack attached. The unit is designed to convert lever cutters to hydraulic power cutters.

Ink Conditioner

CLAIMED to aid in the adaptation of ink to paper resulting in smoother laying and improved working properties, is an ink conditioner announced by the American Printing Ink Co., Div. of Sun Chemical Corp. The compound, known as Apic, is said to contain no grease or wax, and is used to reduce the tack in letterpress, gloss and offset inks without destroying the body of the ink. Sponsor claims that while Apic conditions an ink to prevent picking, it does not retard drying nor does it affect overprinting.

Kelly Three Press

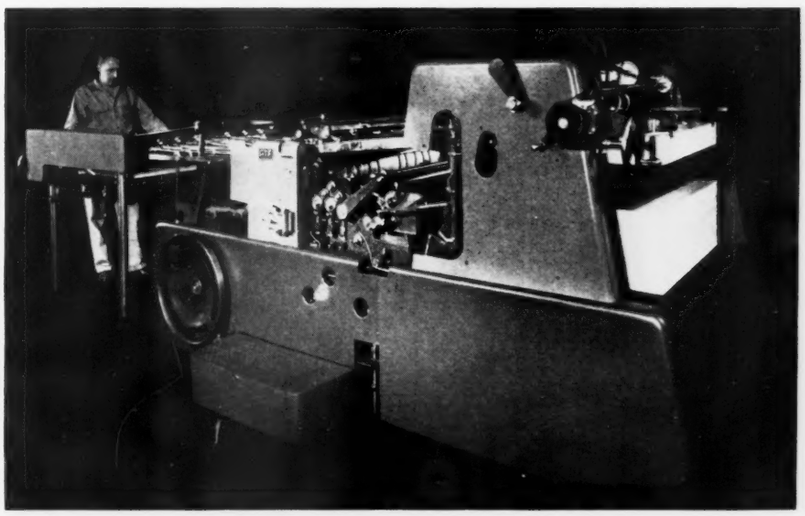
AMERICAN Type Founders has announced the Kelly Three single color cylinder press which is claimed to have a speed of 3500 i.p.h. and has a max. sheet size of 25 in. by 37 in. The press has been streamlined to protect the moving parts at the sides with rounded-edge steel plates finished in two tones of gray.

The overall weight of the Kelly Three has been redistributed to put 1400 lbs. more at the bottom and 150 lbs. less at the top, thus lowering the center of gravity. The bed is constructed of welded steel, while the bed and cylinder bearers are made of hardened steel without screw or bolt holes on the surface.

An improved sheet slow-down mechanism eases sheets up to the guides to prevent rebound. Drop guides and pull guides can be adjusted for register without stopping the press. Other features retained in the Kelley Three are the ATF pyramid ink distribution system, air wheel suction feeder, four bed tracks, and the Bijur automatic oiling system.

Specifications for the Kelly Three are: min. sheet size, 8½ in. by 11 in.; inside chase dimensions, 26 in. by 35⅞ in.; type bed size, 28½ in. by 37¼ in.; roller coverage (3 rollers), 18⅜ in. from deadline; roller coverage (2 rollers), 21½ in. from deadline; roller coverage (1 roller and auxiliary), 24⅝ in. from deadline; lightest stock, onion skin; heaviest stock, 6 ply board (0.024 in.); speed range, 2200 to 3500 imp. per hr.; floor space, 6 ft., 11 in. by 15 ft.; drive motor, 4 or 5 h.p. depending on current; pump motor, 1 h.p.; net weight, 11,500 lbs.

Adjustable Makeready Table — A makeready table which is adjustable both as to angle of the working top and working height has been announced by Hamilton Mfg. Co. The top of the table is covered with heavy sheet zinc and the base is constructed of hardwood having cross members, front and back, which serve as foot rests. Mounted on casters, the table is available in two sizes with working surfaces measuring 48 in. by 36 in. and 32 in. by 24 in.



Operator's side of the ATF Kelly Three cylinder press announced recently. Rated speeds are up to 3500 i.p.h. Maximum sheet size is 25 in. by 37 in.

"Pen" Microscope

GARDNER Laboratories states the Pike Model V "Pen" Microscope is a precision-built optical instrument, with high-power magnifications of 40x, 50x and 60x. The lenses are

achromatic-fully corrected for color and spherical aberration. Instrument is self-illuminating. Light is accentuated by reflecting mirror adjacent the objective lens. Satin finish nickel plate. Size, when closed is 4 7/8 in. long by 3/4 in. diam. at largest part. Furnished with leather case.

Actual size of a Telcoarc electrode, developed by the Western Union Telegraph Co., as compared to a pencil. Luminescent source of electrode, 2/10 in. diam., is claimed to be 1/8 as bright as the sun.

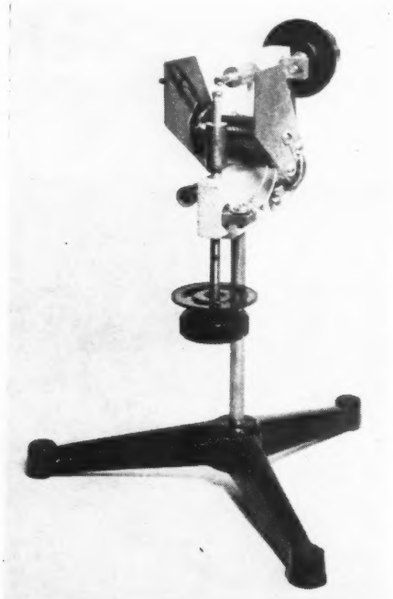
High-Intensity Arc Light

ANNOUNCEMENT was made recently by the Western Union Telegraph Co. of a high-power, high-intensity arc light with a luminescent source 2/10 of an in. in diam. and claimed to be 1/8 as bright as the sun. It has been announced that the light, known as Telcoarc, will result in important applications in the photomechanical processes in the Graphic Arts Industry.

The light source, which operates in the open air, is a pool of molten zirconium metal which is maintained at a temperature near 6500 deg. F. Sponsor states the light source is extremely stable in operation, producing a uniformly bright, sharply defined circular spot of white light. It is claimed that in a 1000 w. lamp, operating at 55 v., 18 amps. a.c., the source spot has a max. brightness of 130,000 candles per sq. in. The total light from the lamp is 20,000 lumens.

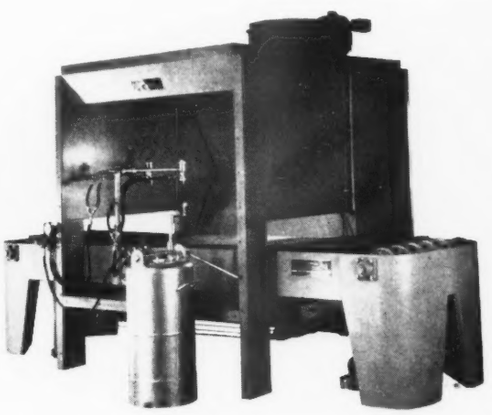
Advantages claimed for the Telcoarc are long electrode life and the absence of toxic fumes and large quantities of combustion products. The lamp has a continuous spectral energy distribution and a color temperature which holds constant at 3600 deg. kelvin.

In spite of operating in the open air at a high temperature, sponsor claims the lamp can be made to have a life of several hundred hours. This is due to an operating principle whereby the zirconium metal is constantly renewed and reproduced from its own products of combustion.



Mounting arrangement devised for first model Telcoarc, a high-intensity arc light announced by Western Union Telegraph Co. In the mounting is employed a magnetic arc control system to operate the two electrodes at right angles to each other to obtain maximum output.

Airfinishing Unit — **Paasche Airbrush Co. has announced the Type F42-SL Automatic Airfinishing Unit, which, sponsor claims, can be made to lacquer (coat) a minimum of 4200 book covers per hr. The book covers are fed to the machine either manually or by a conveyor unit and then pass under the adjustable two-gun coating station at a speed of 45 lineal ft. per min. An airfinishing booth with explosion-proof ventilating unit is provided with the complete unit to exhaust excess fumes to the outside Size of the booth is 4 ft. by 5 ft. by 5 ft. high. Standard equipment for the unit consists of steel conveyor, ball bearing pulleys, rollers, and variable speed, explosion-proof electric motor conveyor drive with speed reducer. Also included in an on-off control, automatic air conditioner and an air regulator unit, two automatically operated air brushes, and a 15 gal. matrieral tank with hand agitator, air regulator, gauge and fittings.**



Transparent Films Chart

NATIONAL Adhesives Div. of National Starch Products, Inc., has issued a chart in which is presented comparative characteristics of commonly-used transparent films. Films in general use have been set up in the chart in 14 groups, according to the basic chemical composition.

In addition to identification by their physical or chemical reactions, and their manufacturers, the films are further described as to respective trade names, gauge or thickness, commercial types according to the manufacturer's code description as well as characteristics in actual use. More than 38 different trade names of transparent films, including Cellophane, Lumarith, Pliofilm, Polythene and Vinylite, among others, are listed. Names and addresses of the manufacturers of these products are also given.

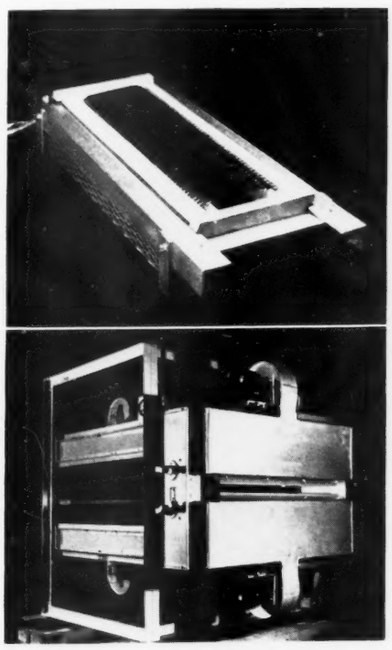
Supplementing the chart is the pocket-size booklet *How to Handle Adhesives for Transparent Films*, in which further details of general types of adhesive formulations for bonding transparent films, proper handling methods, and some of the problems encountered in obtaining good adhesive are discussed.

Elevating Table Bulletin

A HEIGHT adjustable table and/or work bench mounted on casters for movement wherever needed, is described in a four-page bulletin issued by The Hamilton Tool Co. Available in three standard models, the load capacity range is 1000 lbs., 2000 lbs., and 5000 lbs. Table dimensions for each model are 19 in. by 29 in., 21 in. by 33 in., and 26 in. by 38 in. Known as the Portelvator, features include three table surfaces, fast-lift and slow-lift mechanism, self-locking at any height, floor lock, anti-friction swivel casters, and non-swivel large wheels. Special equipment which may be added to standard models is described and illustrated in the two-color bulletin.

Radiant Electric Dryer

THE Dryer Electric Corp. has announced a radiant electric ink dryer to be called the Unetron Electric Dryer. Two models of the dryer have been designed, the Model L for web-fed



The Unetron Electric Dryer, a radiant electric ink dryer announced by Dryer Electric Corp. Top photo shows the Model S designed for sheet fed presses. Lower photo is the Model L for web-fed presses.

presses and the Model S for sheet-fed presses. Variable heat controls can be set at different temperatures, depending on the ink and paper used.

Sponsor claims the desired temperature can be obtained immediately and cut off immediately when heat is no longer desired. Other claims made by the manufacturer are that the dryer will not explode or backfire and a better ink and paper finish results after drying with no scorching, burning or web breakage of printed material.

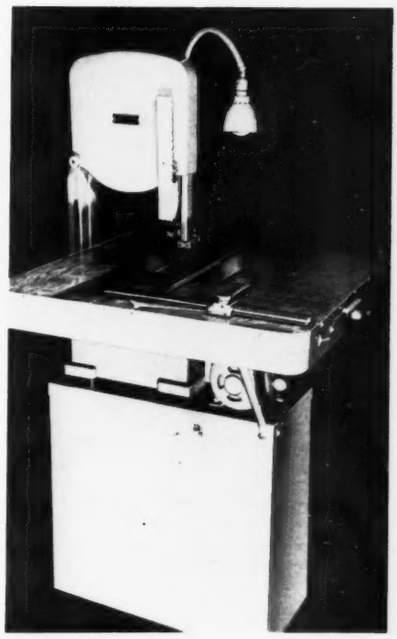
Hand Cleaning Powder

SMYRNA Laboratories has announced a hand cleaning compound formulated especially for the type of ink a printer uses. Known as Free-Print Special, the various blends of the powder are formulated in the laboratories upon receiving information from the printer concerning the name and manufacturer of the ink he is using. The sponsor claims that Free-Print Special is odorless and non-inflammable. Further claims are that the powder will not irritate hand lesions, does not require the use of a brush, and can be used in both hot and cold water.

Augustine Platemakers' Bandsaw

THE Augustine Platemakers' Bandsaw has been designed for use by photoengravers, electrotypers and composing room operators. The saw is used for cutting and trimming flats of engravings or for cutting flush-mounted engravings, stereotypes or electrotypes. Manufacturer states that in many cases it performs the functions of beveler, guillotine, trimmer, nailing machine and circular saw. It trims engravings to inches or pica measurements.

The work clamp is removable and permits sawing of pieces as small as 1 pica square. Gauge adjustable to inches or picas and lifts off entirely for special requirements. Swing-away guide may be laid down on the plate to show line of saw cut, then can be swung up out of the way. Table is 30 in. by 30 in. Plugs in any socket.



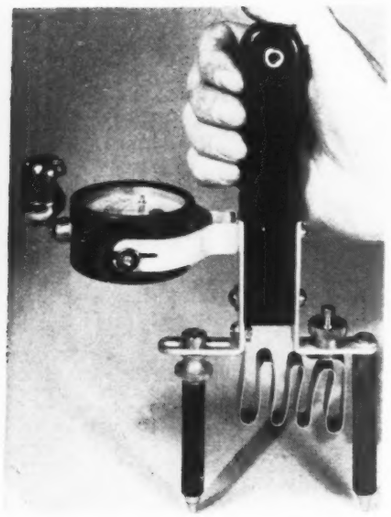
Net weight, 275 lbs. Normally supplied with 110 v., ½ h.p., 60 cy., a.c., sg. ph., ball bearing motor.

Taylor Registerscope, Jr.

THE Taylor Machine Co. has announced the Registerscope, Jr., a device for securing register of forms for small presses before the form is put on the press. It is claimed that the Registerscope, Jr., like its predecessor model for larger forms, permits time saving in both makeup and register.

The Junior model has been developed to handle forms for small presses up to 17 in. by 22 in., and with application of the basic Registerscope principle, it can be made to register forms for curved plates for certain rotary presses. The model is equipped with its own imposing surface, occupies minimum of floor space, and requires no movable carriage. Optional equipment includes a built-in proof press for the preparation of forms for the electrotyper or for the press.

The Taylor Registerscope, Jr., designed for securing register of forms for small presses before the form is put on the press. The device will accommodate forms up to 17 in. by 22 in.



Battery Cell Tester—General Scientific Equipment Co. has announced the Hy-Rate battery cell tester for locating defective battery cells. Sponsor claims the prods are adjustable and will fit the terminals on any battery. One prod can be moved in a slotted holder to obtain proper spacing to test batteries with cells mounted lengthwise. A full size colored dial has scale markings reading, "Dead, Discharged and Charged". A light illuminates the dial in dark places, goes out when the cell is dead, and dims when the cell is low.

Starts 75th Year

Executives and employees of Wm. A. Force & Co., Inc., are celebrating the 75th anniversary of the founding of the company. In addition to the Brooklyn, N. Y., factory, the company maintains sales offices in New York, Chicago, San Francisco and Montreal, Can.

Tape Applier—A device that dispenses, applies and cuts pressure-sensitive tape without touching the fingers to the tape has been announced by Tapematic Corporation. The device, to be known as Tapex, is claimed to apply the tape automatically with a one-hand motion. Pressing the feeding end of Tapex to the surface causes the free end of the tape to adhere. Tapex is then drawn along surface to be sealed and the knob is depressed to cut the tape. Available in two sizes to accommodate ½ in. and ¾ in. wide tape, it is made of unbreakable wire, green, gray and brown plastic. Sponsor states it will take rolls of imprinted or plain tapes up to 1296 in. long.

Keller Incorporates

George R. Keller has announced as of January 2 the incorporation of his business as supplier of machinery and supplies for the Graphic Arts to be known as George R. Keller, Inc. Officers of the firm include Mr. Keller, President and Treasurer; Clarke J. Fitzpatrick jr., Vice President; Walter E. Thomas, Vice President; Marion A. Reading, Assistant Treasurer; and Blanche Mansfield, Secretary. Address of the Keller firm is 210 G St., N. W., Washington 1, D. C.

Reliance V*S Drive

AN all-electric, variable-voltage type of adjustable-speed motor drive to operate on a.c. has been announced by Reliance Electric & Engineering Co. Designated the Reliance V*S Drive, it is designed for such equipment as printing presses, paper winders, slitters, folders, bag machines, conveyors, and packaging machinery.

Reliance V*S Drive, a variable-voltage type of adjustable speed drive to operate on a.c.

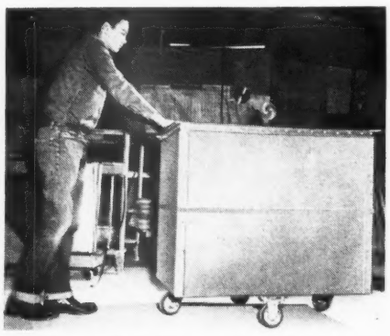
Available in ¾, 1, 1¼ and 2 h.p. sizes, the drive is constructed to operate on single-phase, a.c. power with speeds ranging from 290 to 2300 r.p.m. at rated output and 80 r.p.m. for short periods or at light load. Sponsor claims the drive provides stepless speed selection and adjustment throughout this operating range.

The V*S Drive consists of: a drive motor for connection to the driven machine; an operator's control station providing "start-stop" push buttons, "run-jog" selector switch, and speed adjuster; and a control unit which includes enclosed contactors and overload relays to provide for desired functions of the drive. Bulletin D-2101 is available for further information.

Gearmotors Announced—Making use of hard helical gears and other moving parts which are claimed to have been processed and heat treated under improved methods, is a gearmotor announced recently by Foote Bros. Gear and Machine Corp. and The Louis Allis Co. The gearmotor, available in 17 sizes, provides single, double and triple reduction units having output speeds from 780 r.p.m. down to 7.5 r.p.m. Integral horsepower ratings from 1 through 75 h.p. are available for practically and industrial application, it was stated.

Dual Purpose Copyist

ANNOUNCEMENT has been made by Hunter Photo Copyist, Inc., of a dual purpose machine which will make both photo copies and offset plates. Designated Model 2024L, the machine's capacity is 20 in. by 24 in. Photo copies are made on the machine in the usual manner. The material to be copied is positioned on sensitized negative paper, the lights turned on, and the copy is made. The offset plates print from the paper negative made by the above method. An offset plate (metal or paper) is positioned against the negative in the vacuum frame. A set of black light tubes is set up in front of the frame and the exposure is made.



Box-type Truck—An all-aluminum, box-type truck has been announced by Tobey Mfg. Corp. The truck pictured above measures 24 in. by 48 in. by 33 in. high, and weighs 95 lbs. The weight includes the 5 in. Airlite wheels mounted in Aerol casters. Frame of the truck is constructed of aluminum alloy angles and panels are aluminum alloy sheet flush riveted so that all inside surfaces are smooth. Sponsor claims the aluminum construction makes these trucks non-magnetic, non-sparking, and will not rust, splinter, absorb odors, corrode or deteriorate. Available in all sizes and capacities to meet individual requirements.

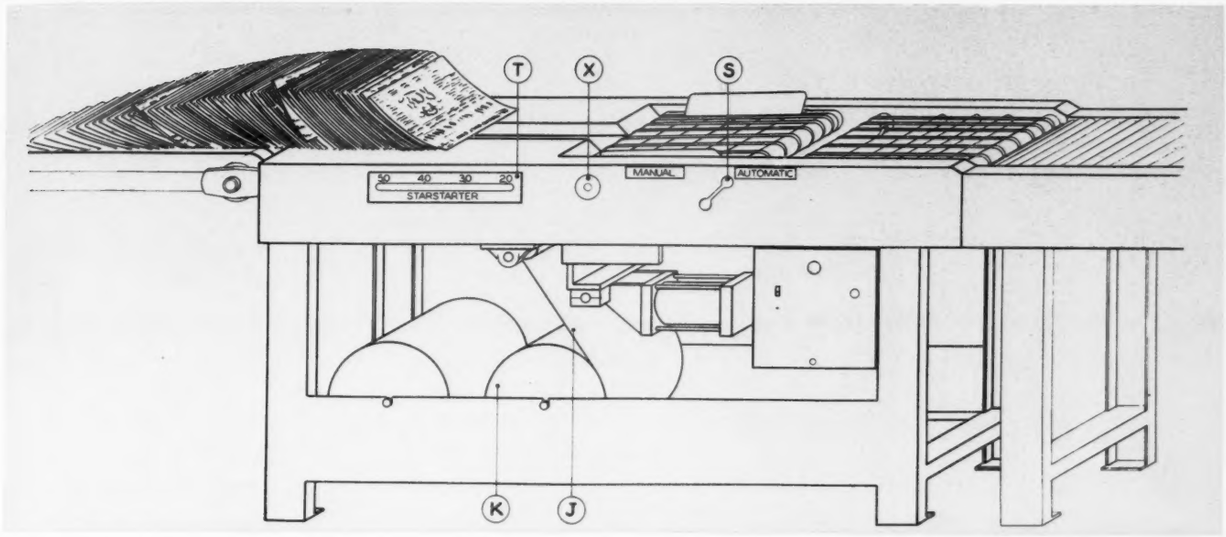


Fig. 1.—The sketch shows the relation of the Starstarter to the Cutler-Hammer paper conveyor and to the roller slat stack conveyor on which counting is done and top wrappers applied. It also shows the counterweight adjustment *T* for the size of paper stack, the manual-automatic lever *S* and the table release button *X*.

Starstarter

Technical description of machine for counting newspapers and applying lower wrapper to bundle as newspapers come off press conveyor

By T. R. SYKES, *Manager, Research-Engineering Dept., The Toronto Star Limited.*

FOR many years the Toronto *Star* has carried on research in methods of newspaper production to increase operating efficiency, improve quality and reduce costs. Intensive competition amongst manufacturers has brought about highly efficient methods in many of the steps required to produce a newspaper. However, in certain mechanical departments, lack of competition and interest have retarded development. The mailing room falls in this category, and a large portion of the research time at the Toronto *Star* has been devoted to improvements in this section. The Wallastar Automatic Bundler was one such development, and now the Starstarter is a further step in the complete mechanization of mailing room operation.

Due to the rapid growth of circulation, the Toronto *Star* felt the pressing need to modernize their own mailing room. The Wallastar Automatic Bundler had been developed to feed the tie bundles automatically, and a bundle preparation layout was desired that could match its efficiency. Study of mailing rooms in other newspaper plants indicated that no layout then existed which would fill our needs.

The entire mailing operation was reviewed with the ideas of work simplication and mechanization foremost in mind. Conveyors highly suitable for handling loose piles of newspapers already existed in the form of roller slat conveyors, using small rollers such as used in the Wallastar feeder. Tests indicated that bundles could be counted efficiently, directly on such a conveyor as the stack moved past the mailer. The number of papers in the initial pile, however, must be kept reasonably close to the final count, *e.g.*, if the papers were in lifts of 25, then the pile should contain the nearest higher or lower lift to the correct count, thus leaving the mailer to add or subtract a maximum of 13 papers.

The stumbling block to an efficient mailing room layout appeared to be the gathering of the stack from the Cutler-Hammer conveyor, placing it on a bottom wrapper, and starting it on its journey down the roller slat conveyor. Considerable thought, of course, was given to gathering and counting stacks of papers automatically, including wrapping and labeling. There have been a great many patents issued on the subject, but, as a successful fully automatic machine of this type seemed many years away, it was desirable to proceed with development of equipment which would reduce the labour of gathering a stack of papers. The Starstarter is this development.

Straight Line Flow

In our own mailing room, and in most other plants, straight line flow is desirable and gives the maximum efficiency. With this in mind, the machine was designed to feed bundles directly from a Cutler-Hammer paper conveyor, end on, to a roller slat conveyor, and then directly through a tying machine. It was recognized that the occasional plant could only use a setup where the bundles were delivered on to a conveyor at right angles to the discharge of the Cutler-Hammer. To take care of this situation, the Starstarter has been made wide enough to handle bundles sideways. However, this partially defeats the work simplification that has been achieved through the Starstarter.

Work Simplification Principles

Newspapers leave a press in a surprisingly high volume. The mailers flying an average conveyor, lift a ton of papers every 3 to 8 min. It is axiomatic, in work simplification, that the simpler the

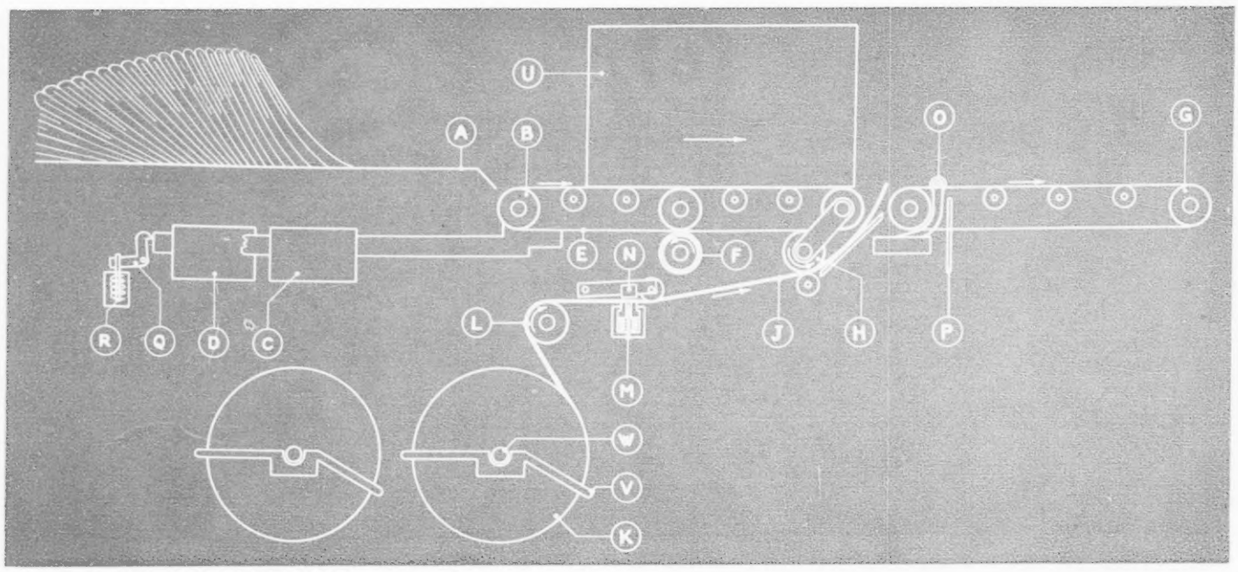


Fig. 2.—This schematic section through the Starstarter shows the papers from the Cutler-Hammer paper conveyor spilling on to the table *A* from which they are gathered in lots of 25 or 50, and slid onto the hinged conveyor table *B*. This table is counterweighted by two weights, an adjustable one *C* and a fixed weight *D*. The weight *D* balances the table only, and the weight *C* is set to the correct number of pages for the papers being stacked. At this setting, the correct stack of papers overcomes the counterweight, allowing the table to drop. The table belts *E* press against revolving table drive roll *F* which has a rubber friction surface. This moves the belts, which then carry the stack of papers from the hinged conveyor on to the short continually running conveyor *G*. Roll *H* hinged to the front of the counterweighted conveyor table *B* transfers the motion of the belts *E* to the wrapper web *J* feeding it up just in front of the stack and allowing it to be carried along under the stack on to conveyor *G*. The wrapper web is fed from either one of two rolls *K* of Kraft wrapping paper. It is fed over wrapper assist roll *L* and between cutting knife *M* and anvil *N* and then along under the out-going bundle. The cutter slits or partially cuts the paper at each operation, and is so spaced from the end of table *B* that the slit appears in the wrapper just after the bundle.

Key to Parts of Starstarter Shown in Figs. 1, 2 and 3.

A—Slotted Table
B—Hinged Conveyor Table
C—Adjustable Counterweight
D—Fixed Counterweight
E—Table Belts
F—Table Drive Roll
G—Continuous Running Conveyor
H—Wrapper Drive Roll
J—Wrapper Web
K—Roll of Kraft Paper for Wrapper
L—Wrapper Assist Roll
M—Cutter
N—Cutter Anvil
O—Wrapper Cut Detector Switch
P—Wrapper Breaker Bars
Q—Table Latch
R—Table Latch Release Solenoid
S—Manual-Automatic Lever
T—Counterweight Adjustment
U—Stack of Papers
V—Brake Shoe
W—Shaft (Paper Roll)
X—Table Release Button

motions of the operator, the greater the output and the less the fatigue. During the stacking operation the mailer flying the conveyor must alternate the folds of each lift of papers. He has the choice of either flying the first lift parallel to the papers leaving the conveyor (arm motion) and then turning the next lift through 180 deg. (complicated arm, shoulder, and body motion) or of turning each lift, the first lift 90 deg. one way and the second lift 90 deg. the other way, both arm motions. In this case the stack will leave end on and at right angles to the papers coming in on the Cutler-Hammer. This was the method chosen for flying on the Starstarter, as it eliminates the very tiring 180 deg. turning motion.

Wrapper Fed Under Bundle

By having the wrapper feed automatically under the bundle, the motion of placing the bottom wrapper has been eliminated. In conjunction with this, by making the table on which the papers are gathered from the Cutler-Hammer conveyor slightly higher than the conveyor table, the first lift of papers for each pile can be easily slid into position, rather than lifted. By having the Starstarter move the pile away automatically when a given number of papers has been accumulated, the very tiring body motion of pushing away the stack is eliminated. The above discussion outlines the reasons behind the development of the various functions of the Starstarter.

The Starstarter is primarily an automatic conveyor with a mechanism for cutting off wrappers from a roll and feeding them under the stacks as they leave the Starter. It is not a complicated machine and every effort has been made to keep operations simple. The bottom wrapper is cut from a roll of Kraft paper.

Two positions are provided for the rolls, making it only a few seconds work to thread in a new web of Kraft. The machine cuts the wrapper to length leaving only a few tabs of paper to pull out the following sheet as the wrapper is fed under the bundle. The wrapper is finally torn apart as the bundle leaves the machine.

Papers Spill From Conveyor to Fixed Table

The machine, consisting of a fixed table, a hinged conveyor table and a short, continuously running web conveyor, is located directly at the end of the regular press or Cutler-Hammer paper conveyor. The lapped papers spill from the paper conveyor onto the fixed table which has a central slot to permit a hand to be slipped under the papers.

The first lift of papers is slid to the hinged conveyor table. For bulk tying operations the hinged section is counterweighted. When the proper number of lifts of papers have been placed on it the table drops pressing the belts against a revolving rubber covered roller, which drives the belts moving the stack of papers forward.

A roll, mounted on the hinged table and driven from these belts, feeds the wrapper paper up under the stack of papers as it moves off the hinged conveyor on to the short continuously running conveyor section.

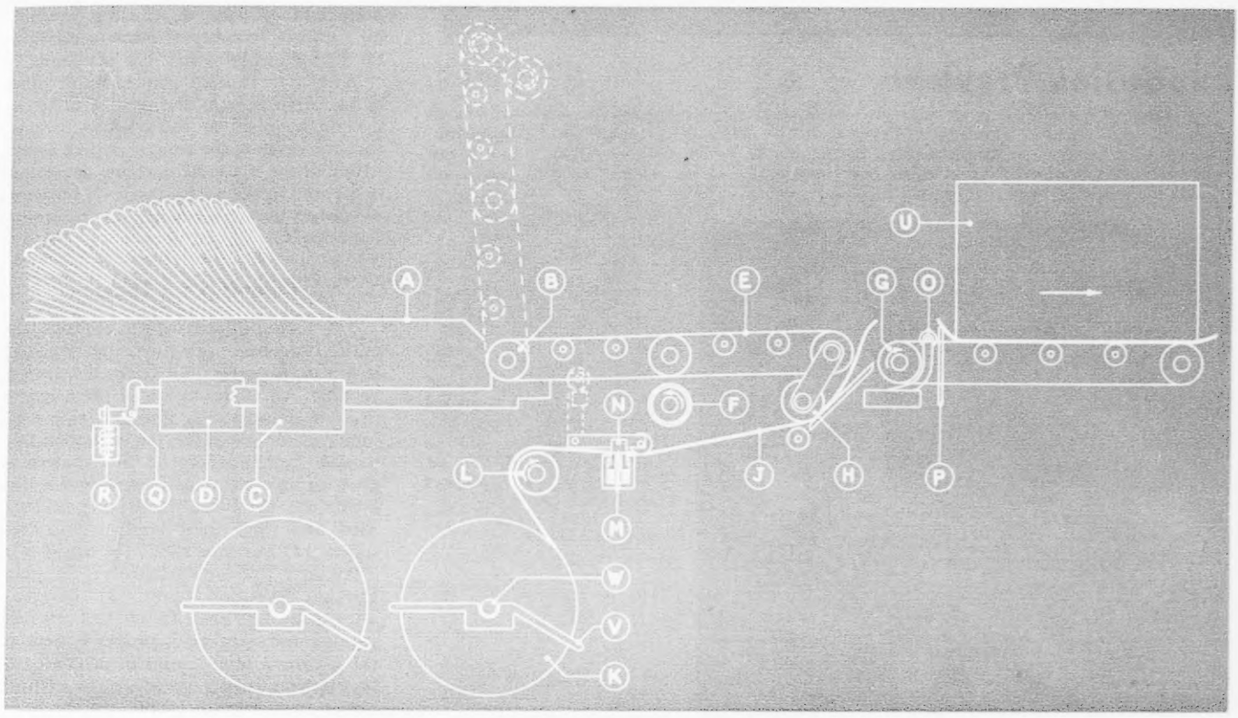


Fig. 3.—The switch arm *O* detects the slits in the paper and operates the cutter anvil *N* through a solenoid valve and air cylinder. The rubber strip in the anvil is clamped against cheekwoods in the cutter *M*, and at the same time, the knife automatically puts new slits in the web. This clamping action stops the feed of the wrapper and the friction of the belts on conveyor *G* plus the momentum of the stack of papers tears the wrapper at the previous points of perforation just behind the stack. The braker bar *P*, operated in conjunction with the cutter anvil *N*, pushes through the tabs left on the wrapper, to assist the severing operation on very small stacks.
As soon as the stack leaves, conveyor *B* is lifted by the counterweights ready for the next stack. The length of the wrapper may be set by adjusting the position of cutter *M*, and the position of the stack of papers on the wrapper is adjusted by the position of detector switch *O*. For operations requiring a varied size of stack, the machine may be set for Manual operation. Moving the lever *S* (Fig. 1) to the Manual position lifts counterweight *C* out of contact with the hinged conveyor table *B* leaving weight *D* which is only sufficient to return the empty table. The latch *Q* is also permitted to engage the arm on which counterweight *D* is mounted, and holds the table in the up or disengaged position. When the mailer has placed the correct lifts of papers on the table, he operates an electrical switch *X* (Fig. 1) which energizes solenoid *R* and thus releases the latch *Q* allowing the table to drop on the revolving roll *F*, and the stack moves off (see Fig. 2), in the direction shown at *U* in this Fig. 3.
The wrapper web is readily threaded through the machine by lifting the hinged table *B* to a vertical position and unlatching the cutter anvil *N*. The operator may then reach through into the machine and grasp the end of the paper from either roll *K* of wrapping paper, and pull it up through and under the various rolls. He relatches the cutter anvil, lowers the table and operates the detector switch *O*. This operates the cutter and produces the initial slit in the wrapper readying the machine for operation. Brake shoes *V* operate against the ends of the roll of wrapping paper to prevent it spinning as the wrapper is drawn off. The brake surface has a slight angle so that it only contacts the roll at the periphery, thus producing a constant brake tension regardless of roll size. The rolls of wrapper are held on shafts *W* sitting in notches in the frame of the machine.

Separation of Wrapper

The wrapper web, which has been partially cut during the previous operation, just a wrapper length back from the leading end, moves along under the bundle. A switch riding under the wrapper detects the slits in the wrapper and operates the cutter mechanism, clamping the web and causes it to tear off remaining tabs of paper at the cut. The stack of papers leaves the machine carrying its bottom wrapper properly placed.

The air-operated cutter precuts the next wrapper as it clamps the paper for the tear. The position of the cutter mechanism is adjustable longitudinally in the machine to cut a length of wrapper suitable to the length of newspaper being stacked. The wrapper is always cut to leave an overhang front and back of the paper stack as well as on the sides. This protects the paper edges as they pass along conveyors and down chutes.

As soon as the stack of papers leaves the hinged conveyor, the counterweight returns it to normal position and the belts stop. The counterweight is adjustable and a calibrated scale on the side of the machine gives the setting for the number of pages in the paper being printed. The markings are for 100-paper stacks, but for 75 papers the operator only has to set for 25 per cent fewer pages and for 50-paper stacks, half the number of pages.

Controlling Number of Papers

For operations where counting of the stack is required, it is desirable to control the number of lifts placed on the stack before the machine operates. An electrically controlled trip has been provided for this. When control is in automatic position the table operates by counterweight; when in manual, the table remains latched up until tripped by the operator.

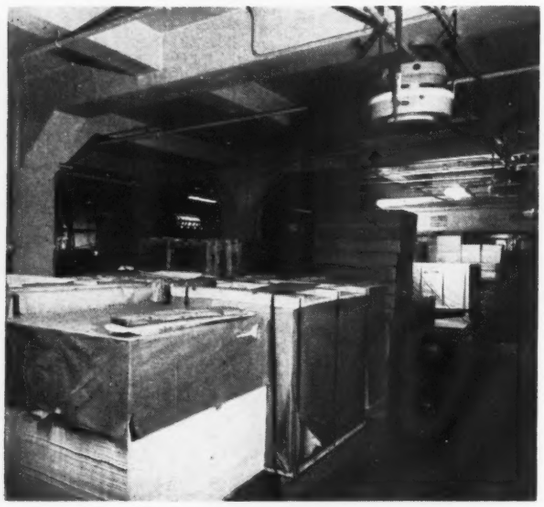
The cutting knife uses standard press folder parts with slight modifications and is operated by an air cylinder giving a rapid and powerful cut. Gaps are left in the cutter knives to provide the paper tabs pulling the wrapper web. An auxiliary breaker arm operated from the cutter assists in severing the wrapper on very light stacks where the momentum is not sufficient.

The electrical controls are simple, consisting of a magnetic starter, locking relay, two limit switches, latch release solenoid, and a four-way solenoid air valve. Provision for a remote start-stop switch permits stopping the machine from the conveyor line or tying machine in case of emergency, and an auxiliary contact on the starter also permits the roller slat conveyor to be operated as a unit with the Starstarter.

Production and Mechanical Executives are invited to submit to the editor informally in a letter devices which have helped production in their plants.

Exposition Previews

From time to time, *Printing Equipment Engineer* will publish pre-views of manufacturer and supplier exhibits to be held at the National Graphic Arts Exposition, Chicago's International Amphitheatre, September 11 to 23. Our executive readers can read about proposed exhibits in these pre-views and make a mental note to call upon exhibitors' representatives when in Chicago.



At upper right can be seen a Walton Humidifier in operation in a commercial printing plant pressroom. This and other Walton Humidifiers will be exhibited at National Graphic Arts Exposition.

How to Cut Production Costs with Adequate Humidification is the theme of the exhibit of Walton Laboratories, Inc., at the National Graphic Arts Exposition, to be held in Chicago's International Amphitheatre, September 11 to 23. Walton will occupy Booths Nos. 194 and 195.

The company will exhibit its complete line of industrial humidifiers. Walton Humidifying Units will be in actual operation in the booths, we are advised.

The large Model 30 which evaporates into the air 3 gals. of water per hr., the Heavy Duty models which evaporate into the air 1 gal. of water per hr., and the small Junior and Commercial models which evaporate ½ gal. and 1½ pts. per hr., respectively, will be on exhibition.

Walton engineers will be on hand to answer all questions pertaining to controlled humidification and to assist in solving dry air problems.

Offset-Lith Technical Forum Draws 400 In New York

By ADAM HENRI REISER

LITHOGRAPHERS of the New York Metropolitan area had an opportunity on January 13 and 14 to observe practical demonstrations and hear explanations of the methods and practices advocated by the Lithographic Technical Foundation. A number of these forums have been held in various parts of the United States. Sponsored by the lithographic employing group in the New York City area, (The Metropolitan Lithographers Association, Inc.,) the Forum was held at the New York Trade School, 312 E. 67th St., where the offset-lith facilities of the school were loaned for the purpose.

An attendance of 400 represented some 80 shops from the area and nearby cities.

Seven technical experts and two associates journeyed from the LTF Research Labs at Glessner House, Chicago, to put on the Forum. The two associates are chemical engineers sponsored by lithographic concerns; Louis D. Pollner, a graduate engineer of the Columbia Engineering School, being sponsored by the Consolidated Litho Co. of Brooklyn and David W. S. Riddell, sponsored by the Montreal Litho. Co. Research Manager Michael H. Bruno; Research Consultant Prof. Robert F. Reed; Business Manager, Research Department, Jack W. White; Supervisors Dr. Paul J. Hartsuch, Edward J. Martin, George W. Jorgensen and Pressman Joseph J. Jania completed the panel imparting the information.

Demonstrations were presented in chemical handling, pH measuring, surface treatments, platemaking, press testing, paper handling, hygroscope and the register rule. Discussions developed around paper troubles, the use of instruments to control tone reproduction, platemaking, graining, coating sensitivity, surface treatment, desensitization, the bi-metal plates and ink problems.

With our limited space, inadequate to properly present the wealth of information supplied at the sessions, let's go through some of the representative items. Much of the material that was presented is covered in the many research bulletins published by the Lithographic Technical Foundation.

Control is the Theme

The theme of control ran through the entire procedings. To have effective control it is necessary to know the factors present. An examination of plate graining for illustration, and by the way, material for a treatise on this operation is now being prepared, this matter of plate graining can be broken down into 8 factors; (1) plate metal; (2) marbles used and their total load; (3) grainer speed; (4) abrasive used; (5) amount of lubricant; (6) time schedule; (7) plate storage condition; and (8) handling after graining; each factor has received careful study and with proper control of the factors a fairly uniform product can be supplied using standard procedure. However, while the metal and the grain is important as a means of supplying anchorage for the plate coating used, the importance of a coarse grain has been dissipated. It has now been recognized that the non-work areas of the plate can be made sufficiently water receptive on a uniform fine grain. The purpose of the grain is to increase the surface area of the plate. A grain with scratches defeats this purpose. A dull, matt appearance indicates an acceptable grain. It has been the practice in the past to identify the grain with the grade of the flint used in the graining operation; such as a (00 grain) or a (0000 grain). Use of the terms *fine*, *medium* or *coarse* more nearly define the grain and it is recommended they be used. One important contribution is the finding that stacking plates in the graining machine during the graining operation is not productive of control of the characteristics of the grain.

Plate Coating Sensitivity

Sensitivity of the plate coating has also had some further examination. Indications revealed the need for some sort of a measuring device for sensitivity and out of this need came the sensitivity guide. This guide, fundamentally a continuous tone grey scale, enables the plate maker to determine whether his development needs to be carried on any further, whether it is deep-etch or albumin he is working on.

With the great problem of the pressman lying in the desensitivity of the non-printing areas of his pressplate, study was conducted to provide better materials to obtain this result. Cellulose gum has been found to act best if prepared and used properly. The Hercules Powder Co. produces a good grade but solutions are being marketed by responsible supply houses. The gum must be a good grade, acidified to a pH 4 by the addition of phosphoric acid. Used as a

New York Lithographic Technical Forum—In this group of pictures are shown a number of the men who made the New York Lithographic Technical Forum successful. The Forum was sponsored by the Metropolitan Lithographers' Assoc., Inc., and was held in the New York Trade School on January 13 and 14.

1.—Sponsors—(Left to right) Wade Griswold, Executive Director, Lithographic Technical Foundation; Dr. George E. McLaughlin, Supt., New York Trade School; William Winship, President, Metropolitan Lithographers Assoc.; Ralph Cole, Chairman of the Committee sponsoring the Forum; Walter Soderstrom, Executive Director, Metropolitan Lithographers Assoc.; William J. Stevens, Executive Secretary, Metropolitan Lithographers Assoc.

2.—LTF Personnel Sharing Their Knowledge—(Left to right)—standing: Louis D. Pollner, Edward J. Martin, David W. S. Riddell, Joseph J. Jania and George W. Jorgensen. Sitting: Dr. Paul J. Hartsuch, Prof. Robert F. Reed, Michael H. Bruno, and Jack W. White.

3.—Litho Employers and Service Men—(Left to right) Herbert Hirsch, Arthur Staib, H. Hirsch, jr., proprietors of David Weil & Sons; Frank Graziano, A. George, Ralph Hathaway of Sinclair & Valentine Co.

4.—Lithographers and Service Men—(Left to right) Charles Prietz, Vice President, Suess-Wilkinson Co.; Charles F. Roberts, Secretary, Brett Litho Co.; George N. Johnson, Litho Supervisor, Paterson Parchmont Co., Bristol, Pa.; Ted Makarius, General Sales Mgr., Sun Chemical Co.

plate etch on zinc when combined with phosphoric acid and magnesium nitrate, the product works admirably when smoothed down well. Less water can be run in the press on these plates, but the pressman must use the same gum and etches as the plate maker, no dichromates or similar etches working well with these plates.

Plates have been run for 5000 sheets using clean water in the fountain where the plate has been treated with cellulose gum. Scumming occurs when the pH of the fountain solution runs below pH 3, average running taking place with a pH of 5 or 6, sometimes even going to pH7.

Bi-Metal Plates

While deep-etch plates provide offset-lith with a fairly stable image, work being done to provide a better one has resulted in the bi-metal and the tri-metal plate. In bi-metal plates, the image lies on one metal with the non-work areas on another, and in tri-metal plates the third metal acts as an anchor for the image and non-image areas.

An ideal arrangement of the metals would produce a grease receptive surface on one metal when treated with a common chemical while the other metal becomes water receptive. For illustration, a 25% solution of nitric acid will sensitize copper or nickel; or it will desensitize chromium, stainless steel or aluminum. Combinations of the copper stainless steel plate and the copper-chromium plate are marketed in this

country at the present time. Both are treated in much the same manner as the deep-etched plate. The most important step in producing the image on these plates is that of the counter-etching operation. An increase of about 50% in time for the exposure is also noted.

Development time on the other hand is shorter in duration than for the regular deep-etched plate. Here too, the LTF Sensitivity guide is helpful. A special chromium etch is used to dissolve the chromium top layer of the plate. It will not attack the copper beneath it nor the stencil that has been exposed.

To obtain the image or to make it grease receptive, a lacquer may be used. There are some that favor a good greasy asphalt mixed with a 5% oleic acid. It has been found well to let the developing ink stand on the image overnight to get a better hold on the plate. A strange action of chromic or dichromate in the fountain solution has been noted, plates run with this solution having been found to go blind.

When necessary, repair easily can be effected on the bi-metal plate. Scum may be removed with a solution of 25% phosphoric while the image may be revived by rubbing with ink while using a solution of 25% nitric acid.

Removing Parts of Image

Removing any part of the image from the plate requires a bit of work but it can be accomplished. The ink is washed from the area which is to be deleted, using naphtha or gas. The bared sections are then treated with a solution of ammonium-bichromate-phosphoric acid of the same composition as that used to keep the brass roller clean. When this has acted on the copper long enough to turn it a rose color, it may be washed off and gummed with a solution of cellulose gum to which has been added a few drops of ammonia to turn it on the alkaline side (9 to 9½ pH). The treatment will have to be repeated after about 20,000 sheets have been run.

Bi-Metal Plate Life

An extremely long-lived plate that has been run for a million impressions, the bi-metal plate becomes useless only when the metal in the gripper clamps breaks away. It has been said that these plates will become as commonplace in another year as the deep-etch plate is at present.

Technical

?s and Ans.

The Forum included a question and answer period. Some of the points made during that session follow.

It was noted that 100% color corrections were not possible with the masking method, generally, some hand work of dot-etching being necessary. Masking did retain the photographic quality of the copy, but often customer demand, coupled with paper and ink limitations, necessitated dot-etching.

Turpentine, whether it was the gum turps or the distilled wood turpentine is quite irritating to the skin of about 60% of the people using it. Lithotine the LTF product which attempted to duplicate the beneficial traits of turpentine and eliminate the harmful ones, should be used to guard against skin disorders.

Deep-etch Plate Problem

Plates losing their deep-etch image in spots following a small run on the press, pose a problem. Basically, the fault in many instances lies in the moisture which somehow has gotten onto the plate, preventing the lacquer or whatever may be used in the image from holding to the metal. This moisture may be left by the alcohol used in removing the developing or the etching solution; or it may be the lacquer being used, having moisture absorbing qualities and taking on moisture from the stencil; or, it may come condensation caused by the difference in temperature of the metal and the materials used in the process. Some deep-etch tables or troughs are now constructed with heat elements beneath the bed to control the temperature factor. Heating the back of the plate with the arc lamps or the infra red lamp prior to the application of lacquer will help, but care must be taken to prevent crystallization of the metal caused from excessive heat.

A dichromate plate-etch applied to the plate during the stencil removing operation will facilitate its removal. Deep-etch coatings applied to plates act differently under different degrees of humidity. At 42% humidity, for illustration the coated plate may be used over a period of seven days. At 75% humidity, the time has been cut to five hours and when the humidity has jumped to 80% the plate may be used only two hours. Where the plate is used in the photo-composing machine when the humidity lies between 75 and 80%, the rubber gaskets of the chases, push through the coating, leaving marks that render the plate useless.

Failure of Albumin Plate

Failure of the albumin plate is not so much the fault of the image as of the non-work areas. It is when the plate resists the water in non-work areas that the pressman reaches for the aspirin.

Recently, during the development of an albumin plate, some of the ink left the image in spots. Some of the reasons offered for this behavior were: When developing ink is taken from the can without agitating the can, the oil may be drained off the top, with the heavy body and pigment of the ink lying in the bottom of the can; residue left on the plate in the pre-cronak operation may not have been thoroughly removed with the cotton swab or flannel used to scrub the plate; the temperature of the water used in development may have been hot instead of just overcast; there may have been a glazing action of the albumin, preventing a solid bond between the hardened albumin and the ink; the plate may have had an uneven coating; it would have been wise to use the sensitivity guide to get the proper exposure.

Pressmen finding difficulty with the moisture retaining quality of the plate often demand a deeper grain. The point is made that better ink-repelling, non-printing areas can be produced through the better desensitizing of the non-printing areas with cellulose gum and etch prepared with cellulose gum.

Zinc or Aluminum?

Two metals are prominent in offset-lith—zinc and aluminum. About 85% of the firms engaged in offset-lithography over the United States favor zinc while the remainder use aluminum. Most of the latter metal is used in the eastern section of the country. Aluminum finds favor because (1) it is primarily a water-receptive metal; (2) it has a good affinity for water and can be run with less acid; (3) it does not stretch as readily as zinc; (4) zinc is becoming rarer and is rapidly joining the ranks of the rare metals; another war will make it hard to get; (5) work tends to remain sharp, rather than thicken as it does when being run on zinc.

Infrared Plate Drying

What use can be made of the infrared method of drying in offset-lith? Can it be used to season the albumin image? It is known that the gum and albumin used in the process consists of large molecules and that these undergo changes in the drying process. Evidence of this is shown when the work walks off the plate if the plate goes directly from the work bench to the press. The moisture-retaining properties of the albumin remain existent unless the albumin is dried through the action of the arc lamp or the infrared lamps. The same thing may be true of the gum coating. A schedule has been set of a 24 hr. period between the finish of the plate and its use in the press.

Blanket Solvents

Solvents used on the offset blanket have received some consideration and the result has been published in Research Bulletin No. 12. Straight petroleum has been found the best for the purpose. However, the best commercially available material and that recommended is a mixture of one-half butol alcohol and one-half naphtha to which has been added a small percentage of hydroquinone.

Water that accumulates on the rubber blanket in offset-lith printing sometimes finds its way to the metal sheet upon which the work is being printed in tin printing. Of course, the moisture is absorbed by the paper sheet when this is used instead of tin. To eliminate the excess, press-manufacturers have installed an air jet so that a blast of air hits the edge of the blanket thus aiding the evaporation of this moisture.

$250,000 Laboratory at RIT

ESTABLISHMENT of a $250,000 laboratory for experimentation and training for four-color web offset press operation at Rochester Institute of Technology, was announced recently by Dr. Mark Ellingson, President.

The laboratory, which will be an additional division of RIT's Publishing and Printing Department under Byron G. Culver, is to be set up in collaboration with American Type Founders and more than 25 printing equipment and supply industries.

Focal point will be a four-color Webendorfer offset press, provided by ATF. Capable of delivering a complete 16-page full size newspaper, printing both sides simultaneously, the 42 T. press operates on a 30 h.p. motor. The laboratory, in full operation, would utilize approximately one-third the power which now operates the entire Institute.

Dr. Ellingson predicted that several months will be required to set the press up and get it in operation. It is expected to be ready for use by the opening of the fall semester in September of this year. Although all details for the education program have not been completed as yet, it is expected that students may enroll in the fall for specialized work in this area.

The laboratory will be located in the basement of the Clark Building, which also houses the Publishing and Printing Department on the second floor. Masons have already lowered a 30 in. pit in the basement floor to make room for the 10 ft. high machine. The press is nearly 52 ft. long and 12 ft. wide.

In addition to the offset unit, the laboratory will include complete plate-making facilities, camera room, paper storage area, plate graining area, shipping and sample room. These, plus auxiliary equipment for the laboratory have a value of approximately $250,000, and are provided by interested industries.

The following firms are participants in the program.

Samuel Bingham's Son Mfg. Co., rubber coverings for press rollers.

Dryer Electric Corp., unitron electric dryer.

W. Gegenheimer, Inc., washup devices.

Ideal Roller & Mfg. Co., roller replacements; Link-Belt Co., four P.I.V. units.

Max Levy and Co., circular line screen and holder.

The Reliance Electric & Eng. Co., main drive motor and control equipment.

Rapid Roller Co., blankets and replacements.

Rutherford Mchy. Co., Div. Sun Chemical Corp., process camera and precision photo-composing machine.

C. P. Goerz American Optical Co., artar lens.

J. H. & G. B. Siebold, Inc., electron-o-plate apparatus and molleton roller covering.

The Simco Co., static eliminating equipment.

Syntron Company, paper jogger.

Towmotor Corporation, lift truck and crane for paper handling.

Weston Electrical Instrument Co., electrical controls for imprinting unit.

Zarkin Machine Co., printing frame, plate whirler, temperature controlled sink, deep etch table, grainers and other equipment.

Edwin B. Stimpson Co., Inc., riveting equipment.

St. Regis Paper Co., Oxford Paper Co., and West Virginia Pulp & Paper Co., paper.

Pope & Gray, and Fuchs & Lang Mfg. Co., Div. Sun Chemical Corp., inks.

Wesel Mfg. Co., camera and vacuum printing machine.

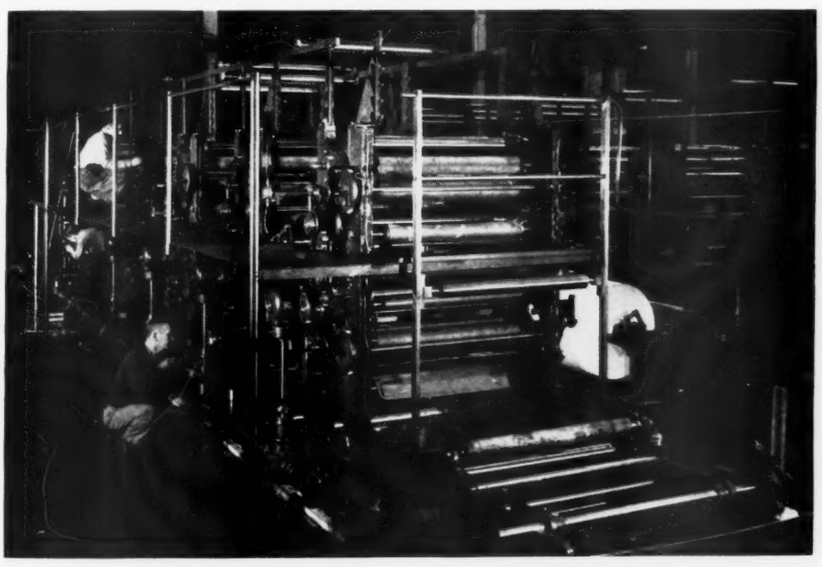
Roberts & Porter, Robport vertical speedjacket machine.

Vandercook & Sons, Inc., offset proofing press.

Monitor Controller Co., National Ceramic Co., National Pneumatic Co., and New York Blower Co., components for electric dryer.

The laboratory will be the only one of its kind in operation. The project grew out of a conference on problems of education and training for the offset web-fed field held December, 1948, at RIT at which representatives of major industries and printing companies concerned were present. The Lithographic Technical Foundation collaborated with the Institute in arranging the conference.

Sprit, the student newspaper at RIT which is edited and published entirely by the students, will be used as a "guinea pig" for experiments in photo-typesetting, deadline studies and materials testing. There are some 50 web offset installations in the country, but only 14 four-unit perfecting presses such as the one to be installed at RIT.



ATF four-color Webendorfer web offset press provided by American Type Founders as part of a $250,000 laboratory being established at Rochester Institute of Technology. More than 25 printing equipment and supplies industries are participating in the establishment of the experimentation and training laboratory. It is expected to be ready for use by September of this year.

Recommends Processing Technique

EASTMAN Kodak Co. has recommended a 75 deg. F. processing technique for Kodak Ektachrome Film which, it is claimed, will reduce the processing time approx. 25 per cent and allow greater temperature tolerances. With the new technique, Kodak states, it is possible to examine the developed negative image in 14 min. after processing is started.

There have been no changes made in the chemicals and solutions previously recommended. Temperature tolerances have been adjusted, however, so that all chemical solutions and washes, except the first developer, are used between 73 deg. F. and 77 deg. F. The first developer must be used at 75 deg. F. with a temperature tolerance of plus or minus ½ deg. These temperatures will be easier to maintain, Kodak feels, and should prove beneficial during summer months when refrigeration apparatus was formerly required to make color film processing possible in certain parts of the country.

Agitation required during processing is now recommended as once every min. rather than once every 2 min. Following both the rinse and hardening operations after the first development, the film should be continuously agitated for the first 15 sec. This is particularly important to avoid scum on the film. It is also necessary to have a good flow of water in the first rinse tank.

Directions for the processing technique are to be placed with the film and in Ektachrome Chemicals Kits.

EXECUTIVE Cs

The Board of Directors of Lanston Monotype Machine Co. has announced the election of A. E. Giegengack as Executive Vice President, effective February 15. Giegengack has been a member of Monotype's Board of Directors since June 1949. In the announcement it is stated he will plan and conduct an expansion program for the company in the sale of typesetting and typecasting machines, and of the company's de-

A. E. Giegengack, newly elected Executive Vice President, Lanston Monotype Machine Co.

veloped line of cameras, lithographic platemaking devices and accessories used in offset-lithography. In his new position, he will make his headquarters in Philadelphia. Mr. Giegengack is also President and Board Chairman of National Graphic Arts Expositions, Inc. Within recent months he set up the organization to conduct the Sixth Educational Graphic Arts Exposition which will be held at the Intl. Amphitheatre, Chicago, September 11-23. 1950. He is also Chairman of the Board of Directors of the First Federal Savings and Loan Association, Washington, D. C., and is also a member of the Board of Directors of the Bank of Commerce and Savings in the same city. Giegengack started his business career as a printer in New York, N. Y. He was United States Public Printer for 14 years, from 1934 to 1948, which is a longer period than any other executive has held the office. For conduct of the GPO during World War II he was awarded the Presidential Certificate of Merit. He is a past president of the New York Club of Printing House Craftsmen (four terms). He is a two-term past president of the Intl. Association of Printing House Craftsmen. He was recently elected Chairman of the Board of Strategy of the Book Industry, the basic objective of which is to implement plans for the unification and promotion of the industry. He has been a leader in encouraging scientific research in the Graphic Arts and is at present associated with a number of organizations having to do with Graphic Arts research.

Named as a representative for Certified Dry Mat Corp. on the Pacific Coast is Clarence C. Liles, former president of the Allied Printing Trades Council of Los Angeles. Mr. Liles has had 41 years experience as a stereotyper. He was

Clarence C. Liles, appointed Pacific Coast representative for Certified Dry Mat Corp.

president of the Stereotyper's Local of Los Angeles for 13 years. His most recent position was that of night foreman of the Los Angeles *Daily News*. Besides the Coast states of California, Oregon, and Washington, Mr. Liles will maintain contact with mat users in Arizona, Idaho, Utah and Hawaii.

Elmer Sandeen, formerly day foreman of the pressroom at the Minneapolis *Star* and *Tribune*, has been named Assistant Mechanical Supt. of those newspapers. He will be in charge of night operations

Elmer Sandeen, named Assistant Mechanical Supt. of Minneapolis *Star* and *Tribune*.

of the production department, and is assistant to Charles R. McGuire, Mechanical Supt. Sandeen has been a pressman since 1925. He came to the *Star* in 1939 as a journeyman and became day foreman of the department in 1941. Replacing Sandeen as day foreman is Arthur Stone, who also has been with the *Star* since 1939. Edward F. O'Neil is Superintendent of the Minneapolis *Star* and *Tribune* pressroom.

Carl Denman, recently connected with Danner Press, Inc., Akron, O., as vice president, recently assumed a new position. He is general sales manager of World Color Printing Co., and Commercial Color Press, Inc., St. Louis, and of Spartan Printing & Pub. Co., Sparta, Ill. With his family, he lives in Kirkwood, a suburb of St. Louis.

Gaetjens, Berger and Wirth has announced the appointment of J. E. Holman as that company's St. Louis representative. Mr. Holman will maintain his office at 1950 N. Eleventh St., St. Louis, Mo. He comes to Gaetjens with a background of 15 years in the printing ink business. Prior to that time, Mr. Holman was engaged in the set-up paper box business.

Gordon Elrod, production manager of the Houston (Tex.) *Chronicle*, resigned that position recently. He is now associated with Ben Shulman, 500 Fifth Ave.,

Gordon Elrod, now associated with Ben Shulman as Executive Vice President and General Manager.

New York 17, N. Y., as Executive Vice President and General Manager. The firm handles printing equipment and supplies. According to Mr. Shulman, Mr. Elrod will devote the major portion of his time to the preparation of mechanical production surveys, and act as a production and mechanical consultant to the firm's clients here and abroad. Elrod is well known nationally in newspaper mechanical circles. During the war years, he was an executive with WPB in Washington, D. C. Afterwards he was New York and Eastern sales manager for the Duplex Printing Press Co.

Roger F. Owsley, former president and treasurer of Arandell Litho Corp., Milwaukee, recently sold his interest in the firm to two associates in the business and has retired to live in San Diego, Calif. His interests were purchased by F. Edward Treis and Wm. F. Engelhardt, who have taken over management of the firm and also serve on the Board. Treis was elected President and Treasurer, and Engelhardt, Executive Vice President and Secretary. Completing his studies at the University of Chicago, Treis was associated with several Middle West lithographic concerns as sales representative, until he joined Arandell five years ago. Engelhardt, a graduate of University of Wisconsin, became advertising and sales manager for a number of Milwaukee firms before affiliating with Arandell in 1939. Other officers of the firm and Board members are Ernest F. Riedelbach, Vice President, and Robert B. Crane, Assistant Treasurer, John C. Krautschneider was promoted to the office of General Production Manager.

(*Continued on Page 70*)

Serves 25 Years with Tingue, Brown & Co.—Guest of honor at a recent luncheon to celebrate completion of 25 years service with Tingue, Brown & Co., was Mrs. Dorothy Groves Murray, Secretary. A silver coffee service was presented to Mrs. Murray by Michael J. Doyle, Vice President and head of the Chicago office. Besides members of the New York office, others in attendance were Harold P. Payne, head of the Los Angeles office, and Robert Shaw, Asst. Vice President.

Record

established for pages printed on straight press run

IT IS thought by Pressroom Supt. Earl Weiskittel of the Youngstown (O.) *Vindicator* that a new record for number of pages printed on a newspaper straight run was established in that plant on Sunday, January 8. To the best of his knowledge, Mr. Weiskittel believes the *Vindicator* was the first newspaper to run more than 64 pages as a straight product.

On the January 8 run, a 66 page paper was printed in the following combination: 26, 12, 16 and 12 pages.

"To date," said Mr. Weiskittel, "the *Vindicator* has run as many as 11 units as one press, but used only eight units to print 64 pages of black and white, and the other three units for additional color.

"Before this time, it was thought impossible to run more than 64 pages straight due to press folder limitations and the coupling of more than eight units together as a single press.

"After talking to Curtis Crafts, Chief Engineer of the Goss Printing Press Co., we felt no trouble would be encountered.

"This run indicates it is possible to print more than 64 pages and gain all the advantages of a straight run up to and including 72 pages.

"If we had not been able to print 66 pages we would have had to jump the page size up to 68 pages as a collect product and would have been limited to duplicate combinations of sections plus the loss of paper due to the two extra pages.

"To maintain our production schedule we would have had to run two collect presses instead of one straight press which meant we would have used 10 units and two folders instead of nine units and one folder. Thus, this additional equipment would have necessitated more men and more power."

A Prime Purpose

RECENTLY, someone asked the management of the Sixth Educational Graphic Arts Exposition if exhibitors could make equipment and/or supplies sales at the exposition. The exposition will be held at International Amphitheatre, Chicago, September 11 through 23.

President A. E. Giegengack answered the query. Said he: "Most assuredly. At the last Exposition in 1939 one exhibitor booked orders for $1 million worth of machinery. That's what the exposition is for. It's prime purpose is to show the latest and most efficient machines and devices manufactured, and to encourage executives in the Graphic Arts to buy them."

Accident Prevention

During the 1948-49 school year, 1,845,678 children in primary and elementary grades received instruction in accident prevention through use of the Suggested Guides for Safety Education distributed to teachers by the American Red Cross.

Half-Million $ Expansion

The Royal Oak (Mich.) *Daily Tribune*, during the latter part of December, started a half-million dollar expansion program. Included are a new building and a printing press. Announcement was made by Floyd J. Miller, president and general manager. The press will be of the metropolitan type with capacity for printing 48 page papers at 30,000 copies per hr. The building is planned to take care of a circulation of at least 40,000.

The building will be two stories high with full basement in which will be included storage space for 30 carloads of newsprint. It will be an L-shaped structure, extending 120 ft. on Third and 100 ft. on Troy St.

Construction will be reinforced concrete faced with brick. A room in the basement will be equipped for lounge, lunch, meeting hall and movie projection purposes. Office areas in the building are to be air-conditioned.

The building was designed by Morton L. Pereira and Associates of Chicago.

Cooksey System Agents

Lawrence C. Martin, President of Collmar Corporation, has announced appointment of two web press manufacturers as sales agents for Collmar's Cooksey System of web control. The new sales agents are the Goss Printing Press Co. and R. Hoe & Co., Inc. It is understood both manufacturers will offer the web control installations as original equipment on magazine and newspaper web presses. The Cooksey System of web control consists of three basic units, a web break detector, sheet severing and clamping device and an electric trolley. The function of the units is to prevent wrap-ups whenever a web break occurs.

World Bible Completed—A contemporary American Bible has been designed by Bruce Rogers (shown in the illustration). The Bible is published by The World Publishing Co., and printed by A. Colish, has been completed after more than four years work. The text matter of the Bible is Goudy's Newstyle with slight modifications, the type face was decided upon by Mr. Rogers and those who worked closely with him (Ben Zevin, President of World Publishing and Mr. Colish). With the cooperation of the Lanston Monotype Machine Co. which owns Goudy's Newstyle, these alterations were undertaken by Mr. Rogers and Sol Hess, Art Director of Monotype. The new type face was called Goudy Bible.

The text is set in 18 pt., with decorative initials drawn by Mr. Rogers for each of the 66 books of the Bible. Chapter initials, also drawn by the designer, were cut by Monotype in 60 pt. Fine-line decoration pieces were designed for the book openings and tail pieces. The finished book contains 968 pages, measures 13¼ in. by 18½ in., and the edition is limited to 975 copies. The 24 lb. volume is bound in red Legal Buckram, with cover stampings in gold. The top edges of the pages are finished in gold leaf, the other edges are left untrimmed.

POSTER COMPETITION

RULES have been announced by The Society of Typographic Arts, Chicago, governing the Poster Competition for the Sixth Educational Graphic Arts Exposition to be held in the International Amphitheatre, Chicago, September 11 through 23. Dr. R. Hunter Middleton, chairman of the Poster Competition Committee said that all artists are eligible to enter the competition and awards are to be as follows:

First prize	$500 cash
Second prize	$250 cash
Third prize	$100 cash

Five honorable mentions.

Folders containing details of the competition have been mailed by the Committee to schools of art and to art groups throughout the country. Designs are to be mailed by artists between March 15 to 31. The competition will close April 8 and the Jury will meet on April 21, after which an announcement of the prize winners will be made. Selected designs will be exhibited at a place and date to be announced. The designs are to be mailed to Chairman, Poster Competition Committee, The Society of Typographic Arts, c/o Newberry Library, 160 West Walton Street, Chicago 10, Illinois. Eleven conditions govern the contest.

The Milwaukee Journal Photoengraving Department

By JULIAN J. EBERLE*

*Mechanical Engineer, *The Milwaukee* Journal.

THE new engraving department of the Milwaukee *Journal* was completed last year. Work began with the filling in of a light court, 40 ft. sq., which existed in the east half of the building above the third floor level. This provided additional space on the fourth and fifth floors and a penthouse at the equivalent of the sixth floor level. On the fifth floor, entirely new photographic and art departments were constructed in new locations. The engraving department was completely rebuilt and slightly enlarged.

All interior walls of the old engraving department were removed and new walls of ceramic tile constructed. Each step was carefully planned to reduce interference with the department which was in full production during the entire construction period. The fact that the department turned out one of its largest volumes of color work during this period is a tribute to patience, cooperation and ability of the engravers working under Henry Arbogast.

Copy Receipt

Copy is received through the door next to the foreman's desk and placed on the copy table located at the end of the two Chemco cameras. The view shown in Fig. 1, taken from the doorway, shows the foreman's desk at the lower left, the copy table (this also serves as a storage cabinet for proofing paper) and the two Chemco cameras. The wall and windows at the left separate the routing (left) and etching rooms from the camera room. The overhead Douthitt camera, used for color, is off the picture at the right.

JOHN KEATING
Vice President and Production Manager, Milwaukee *Journal*.

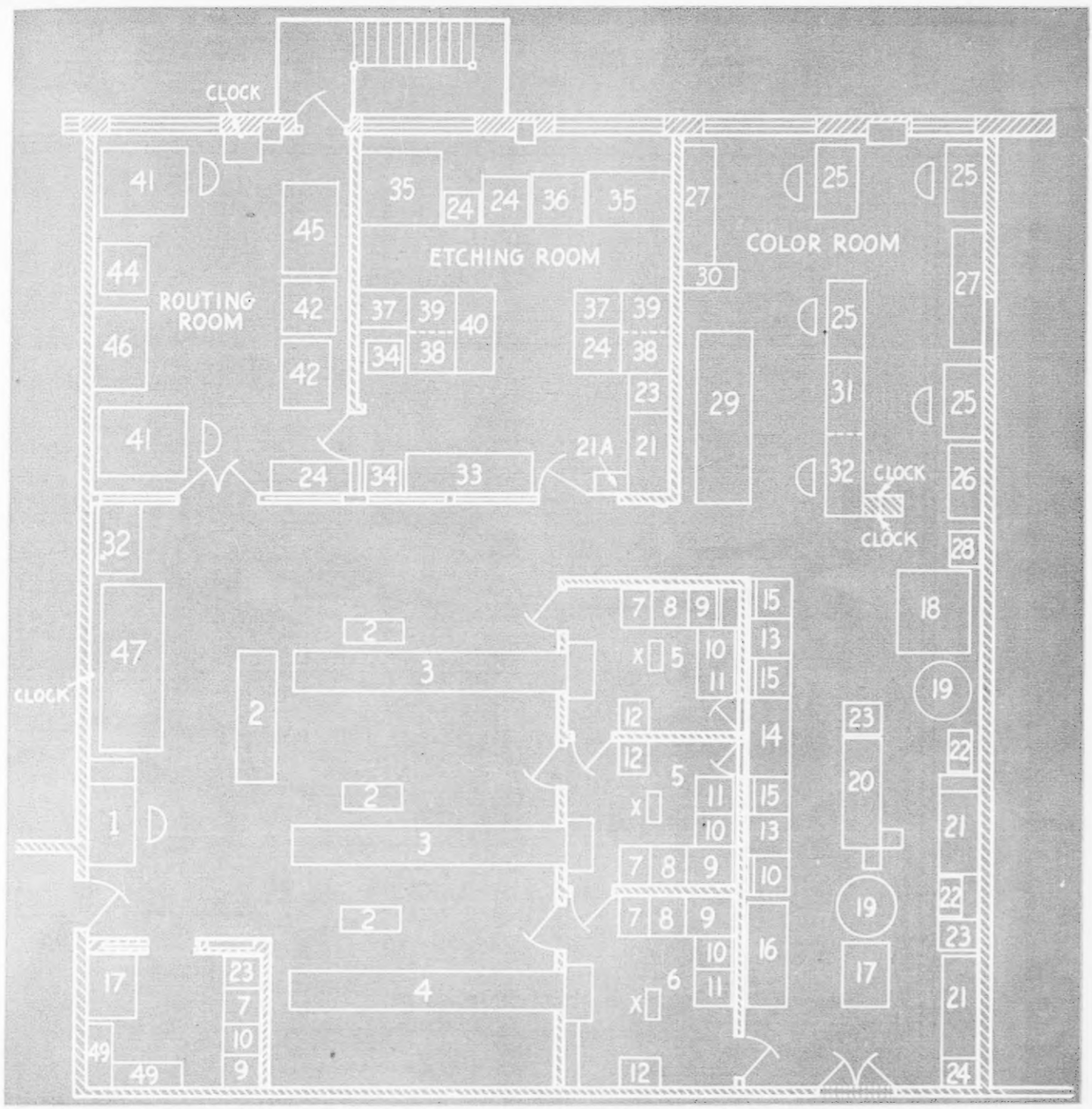
Camera Darkrooms

Specially designed stainless steel sinks were constructed for the dark room operation. (Fig. 2.) Temperature control of processing solutions is accomplished by Powers temperature regulating valves feeding tempered water through concealed openings under the developer and typo tanks, left and right respectively, in the sink to the left. The overflow of the temperature controlled water feeds into the wash section (center) of the sink from where it overflows to the drain. The two-compartment sink at the right contains a wash section and a light box for cutting and viewing negatives. A foot valve controls the flow of water from the faucet above the light box. A stainless steel safe light was built into the wall above the developing tank. A viewing box was also built into the wall as shown in the center of the picture. The viewing light and light box are operated by a foot switch. The developed negatives are passed to the stripping department through the window shown at the extreme right. There are three dark rooms.

Stripping Room

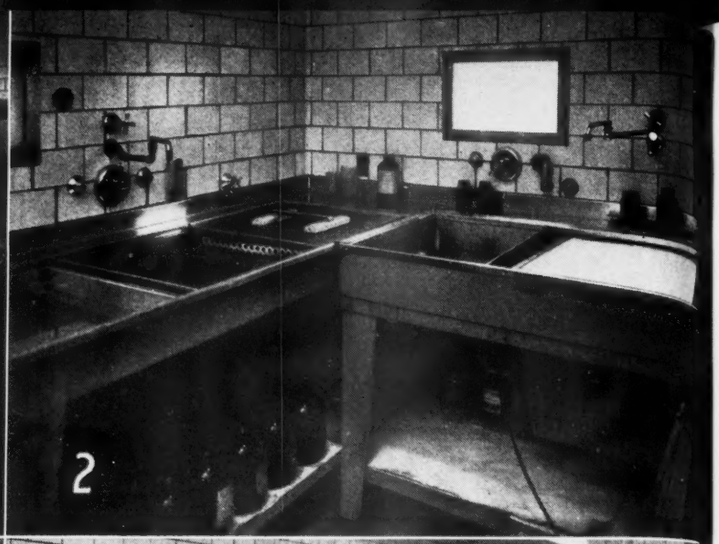
The negatives, received through the windows in the dark room shown in the center, are placed in the stainless steel wash sink. (Fig. 3.) The copies are placed on the shelves above the stripping frames. The divided wash sink makes it possible to use warm water on one side if it is necessary to accelerate the removal of the acetate backing on the film. The negatives are cut to size on the frames on either side. The cut negatives are placed in the next tray to await stripping on glass on the end frames. Clean glass is stored in the racks under the stripping frames. The entire assembly of four stripping frames and four wash sinks was built to form one composite unit. The glass flat is dried on the gas burner shown at left center. The special lighting fixture, partially shown above the stripping frame, was designed by the head electrician to meet unusual demands required by this work. High intensity illumination had to be avoided to prevent

HENRY ARBOGAST
Photoengraving Supt., Milwaukee *Journal*.



Floor Plan Diagram and Equipment Layout, Photoengraving Dept., Milwaukee *Journal*

1. —Photoengraving Supt.'s desk
2. —Copy table and paper storage
3. —Stripfilm camera
4. —Color camera
5. —Regular darkrooms
6. —Darkroom for color work
7. —Developing
8. —Shortstop
9. —Hypo
10. —Wash
11. —Cutting and view box
12. —Positive print frame
13. —Tray
14. —Double tray
15. —Stripping frames
16. —Large stripping frame
17. —Printing frame
18. —Printing frame
19. —Plate whirler
20. —Table and glass storage
21. —Sinks
22. —Developing tanks
23. —Gas stoves
24. —Table
25. —Opaque tables
26. —Storage
27. —Benday machines
28. —Benday sink
29. —Power proof press
30. —Roller cabinet
31. —Table and cabinet
32. —Finishing table
33. —8 ft. table
34. —Carboys
35. —Etching machines
36. —Rocking tub
37. —Powder boxes
38. —Infrared ovens
39. —Coolers
40. —Cooling slab table
41. —Routers
42. —Guillotine
43. —Trimmer
44. —Saw
45. —Beveler
46. —Shoot board and table
47. —Proof press
48. —Washing sink
49. —Work bench



Interior Views, Photoengraving Dept. of The Milwaukee *Journal*

In the accompanying layout, Figs. 1 to 7 inclusive, are shown views of the different departments. This photoengraving department, under the supervision of Henry Arbogast, is modern in every respect. First, the walls are constructed of light tan ceramic tile which is easily kept clean with a window cleaner after sponging down. Fluorescent lighting is used. Plumbing is concealed. Original wood block flooring was left in the camera and routing rooms. Dark room flooring is rubber tile. Red Amcolun Safety tiles laid over concrete with acid resisting mastic was used for the etching room floor.

fogging the sensitized plates being handled on the other side of the room. Some direct light was necessary for general room illumination. The angular reflection of the light from the wall enables the men to see whether or not water remains between the negatives and the glass after stripping.

In Fig. 4 is shown the other half of the stripping and printing department. Zinc is stored in various sizes in the rack under the sink shown at right center. At this sink the sensitizing solution is flowed onto the zinc plate. The whirler is shown at left center. The vacuum printing frame is at the left and the developing tank between the whirler and the sink. An additional printing frame and whirler can be partially seen back of the solumn. The center table is used to store flats of work in process.

Color Room

The color room is located immediately adjacent to the stripping and printing department (See Fig. 5). The finishing table is shown in the immediate foreground with a specially designed storage cabinet and working surface to the finisher's left. Two of the four color tables can be seen at the top left. The color tables, designed by one of the *Journal* color men, consists of the usual drawing board for staging zinc plates, plus a hinged arrangement to permit raising the board to use a light box beneath for working on negatives. The color proof press is located at the left. (See floor plan diagram).

Etching Room

An etching machine is shown at the right in Fig. 6. A stainless steel tray was built as part of the etching machine to serve as a wash sink. Water is fed to the sink from a raised faucet controlled by a foot valve. The powder box is shown at left center immediately adjacent to the combination infrared burning-in oven and cooler. A roll-up table is located next to the cooler. Two similar combinations like this enable two etchers to work simultaneously with a minimum of leg work and without interference with each other.

Routing Room

The routers are located at each end of the wall at the left (Fig. 7). The cabinet and working surface at the center is used for mounting board storage with the shoot board on the top. A saw is located between the router and the cabinet. Along the wall at the right the guillotine, trimmer and beveler are located. The small finishing table for black and white work is barely visible at the left.

Thus the copy makes a complete circle through the department from the time it is received as copy to the time it leaves the department as a completed engraving

Lighting Facilities

A generous use of fluorescent lighting throughout the department maintains a high level of illumination. The light tan color of the ceramic tile walls helps maintain the level of illumination and the cleanliness of the department. Concealed plumbing used throughout contributes to the appearance of the department.

While no air cooling is provided, fresh air is drawn from the roof immediately above the ceiling and passed through heating coils and filters and distributed through ducts and anemostats. One of the anemostats can be seen at the top left in Fig. 1. During the winter, air is recirculated from all departments except the etching room. Additional exhaust is provided by fans in the roof trusses by drawing air through openings located in the walls at the ceiling elevation. A typical opening can be seen at the center top Fig. 1.

The original wood block flooring was left in the camera and routing rooms. Rubber tile laid over concrete was installed in the dark rooms, stripping and printing department, and color room. Red Amcolun Safety tiles, laid over concrete with acid resisting mastic, was used for the etching room floor. This material has exceptional acid resisting qualities as well as a carborundum surface for safe footing when either wet or dry. We are indebted to the Tulsa (Okla.) *World* for the suggestion regarding this material.

The department occupies a space 57 ft. 4 in. by 58 ft. 3 in. with an area of 3340 sq. ft. This compares with 2528 sq. ft. floor area before the change.

Du Pont Gravure Transfer Film

Development of Rotofilm, a transfer film designed for use in making cylinders and plates in the gravure printing process, was announced recently by the Du Pont Co. before a recent meeting of the Gravure Technical Association in New York.

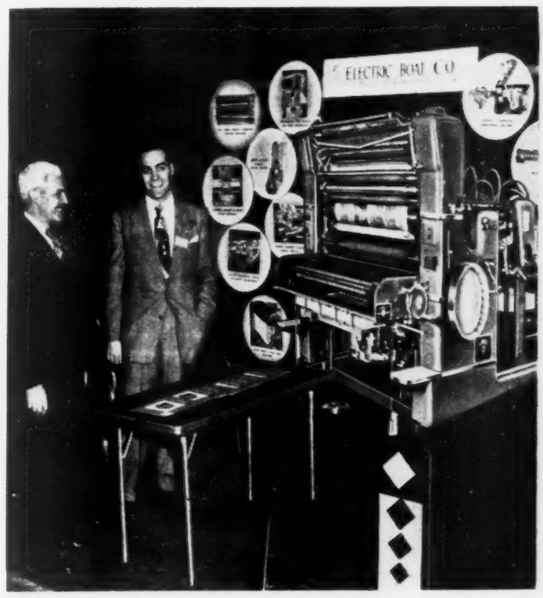
M. Richard Boyer of Du Pont's Photo Products plant at Parlin, N. J., who discussed the development, said, "The most important advantage to Rotofilm is that the print prepared for lay-down can be inspected before etching to determine that a satisfactory cylinder or plate will be made. This will reduce materially the number of remakes."

Rotofilm is composed of a cellulose acetate safety base with a stripping membrane upon which is coated a photographic emulsion. Requiring no advance preparation, it is claimed that exposures can be made in a matter of seconds. It is given a conventional photographic processing except that a special hardening developer is used. Lay-down and subsequent steps are similar to that of present gravure methods. Advantages claimed for the product, other than that the print may be inspected before proceeding with etching, are: Shorter time of exposure, better detail, and elimination of the usual bichromate treatment which in the past has frequently caused soreness and irritation of the hands of workers who are sensitive to bichromate.

It is reported that several national magazines have made successful experiments recently with the new film. Rotofilm has been in the experimental stages for the past four years.

Highway First Aid

State police and highway patrolmen in 45 states have Red Cross first aid training as a part of their program, and a total of 2,412 police vehicles are designated as mobile first aid units in 26 states. In 19 states 185 highway first aid stations are located at state police barracks or substations.



Electric Boat Co.'s Printing Machinery Div., exhibited one of its 22 in. by 34 in. offset presses at the New England Can Print It event in Boston from January 16 to 21. Manning the exhibit were Mal Brewer, Division Sales Mgr. (right) and Peter Rice, New York and New England Sales Representative. Each of the disks in the illustration was descriptive of a press feature. Bulletins were distributed to visitors.

NAPL Exhibits Filled

The National Association of Photo-Lithographers announces recently that all exhibit space has been sold for the 18th Annual Convention and Exhibit to be held at the Shoreham Hotel, Washington, D. C., October 25-28, 1950. Many suites and rooms have already been reserved according to the hotel management. Walter Soderstrom, Executive Vice President of the NAPL, said that a large attendance is expected in Washington and that a program of events is now being made up.

Announcement has been made that Floyd C. Hoffman, Vice President, Uniform Printing and Supply Div. of Courier-Citizen Co., Chicago, has assumed the position of Western Manager. Mr. Hoffman will be in charge of all Chicago plant operations and sales in the middlewest, southwest and Pacific territories. Donald Rein, Vice President, is leaving Uniform to assume the presidency of The Rumford Press in Concord, N. H.

Ben H. Black, sales representative of Intertype Corporation's Western Dis-

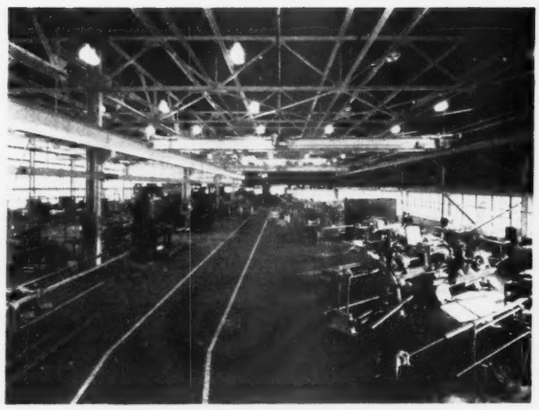
Ben H. Black, Assistant Manager, Intertype's San Francisco Western District Office.

trict Office in San Francisco since 1939, was recently appointed to the new office of Assistant Manager. Before joining Intertype, he was associated with the Phoenix (Ariz.) *Republic and Gazette*, Toledo (O.) *News-Bee*, St. Louis *Globe-Democrat*, the Garrett Press in San Francisco, and the California State Printing Office. Mr. Black is a veteran of World War II. C. Ralph Guilieri, a member of the Western District Office for the past 10 years, succeeds Mr. Black as Sales Representative and will serve clients in northern California and western Nevada.

C. R. Guilieri, Sales Representative for Intertype in northern California and western Nevada.

Kidder Plant Expands

The Kidder Press Co., Inc., recently completed an addition to its plant and reorganized and streamlined production facilities. The addition is of modern steel, brick and glass construction, 100 ft. wide by 240 ft. long. The new area is divided in the center by columns and served by overhead rail cranes. The lighting is a combination of natural daylight, mercury vapor and incandescent lights. The new structure houses machining facilities, an erection area, steel storage and cutoff equipment. Flooring is a reinforced poured concrete slab having a load bearing rated at 5000 lbs. per sq. in. This is surfaced with 2 in. thick wood blocks.



Junior Graphic Arts Group

Formation of the Graphic Arts Young Executives Assoc. of Milwaukee was announced recently with ratification of the new group's constitution. Following a national pattern that has seen similar associations formed in New York and Philadelphia, the Milwaukee men will promote honorable business ethics, encourage educational projects to further the industry, and study and evaluate new phases of selling, production, administration, and finance.

Made up of individuals whose employers are members of the Graphic Arts Assoc. of Milwaukee, membership in the group includes those in junior positions of management and administration, production, creative professions, and sales. Directors are Donald F. Schmidt, The E. F. Schmidt Co., president; Ed G. Stolpa, Peter A. Altenhofen, Inc., vice president; Roland Heller, Milprint, Inc., secretary-treasurer; Gregg Drow, Quality Press; Robert Mandel, Mandel Engraving Co.; Peter Olsen, Olsen Pub. Co.; and Fielding Utz, jr., Milwaukee Printers' Roller Co.

Pledged to Pilot and to Welcome

NEWS coming out of Chicago indicates that at least two Graphic Arts organizations have pledged their membership to make visiting out-of-town Craftsmen and executives welcome at the time of the 6th Educational Exposition, September 11 through 23.

Roy J. Kirby, President of the Chicago Craftsmen's Club, said the club's 900 members will be organized for every type of service to help the tens of thousands of key men for the big events during exposition days.

The Printers Supplymen's Guild membership has pledged itself to serve on various committees to welcome owners and executives of Graphic Arts establishments who will attend the various conventions while the exposition is being held.

Graphic Arts Forum

The Type Directors Club of New York is sponsoring eight educational meetings which will deal with all phases of the Graphic Arts and all printing processes. The meetings are designed for both students and those already actively engaged in printing, publishing, or advertising, who desire to broaden their knowledge. Each subject will be discussed by an expert who is closely associated with the respective machine or method. A fee of ten dollars will be charged for the eight evening sessions and will be held at the Architectural League Clubhouse, 115 East 40th St., New York 16, N. Y.

Canadian Distributor

Hendershot Inks, Ltd. has been established as Canadian distributor of Duall Combination Drier and Kwik Offset Blanket Compound according to an announcement released by Herbert A. Gaetjens of Gaetjens, Berger & Wirth, Inc. Address of Hendershot Inks is 241 Dover Court Rd., Toronto, Ontario, Canada.

NYU Advanced Seminar

To better acquaint those in the printing ink, paper and printing fields with the types of inks and paper used in various printing processes, New York University is offering a 15 week advanced seminar, beginning February 7, on the subject *Ink and Paper in the Printing Process*. Dr. Andries Voet, Director of Research for the Ink Div. of the J. M. Huber Corp., will conduct the course. Other problems of ink and paper selection will be discussed by Dr. Gerard Larocque, New York *Daily News*, and Harold Annis, Oxford Paper Co.

Some of the New Officers, Great Lakes Mechanical Conference—(Front row, left to right): Director, L. J. Griner, Production Mgr., Detroit *News;* Vice President, Frank Dassori, Pressroom Foreman, Detroit *Times;* President, LeRoy Coates, Pressroom Supt., Grand Rapids (Mich.) *Press.* (Back row, left to right) Director, Cecil Watkins, Sidney (O.) *Daily News;* Immediate Past President, W. R. Coddington, Composing Room Supt., Youngstown (O.) *Vindicator;* Director, Joseph McMullen, Asst. Production Manager, Milwaukee *Journal.*

Great Lakes Mechanical Conference

ABOUT 540 newspaper production and mechanical executives and manufacturer and supplier representatives attended the Great Lakes Mechanical Conference at Hotel Schroeder, Milwaukee, January 15, 16 and 17. Under President W. R. Coddington's regime interest in the conference burgeoned, finally winding up with the greatest attendance in the history of the young organization. There were visiting mechanical executives from 12 states.

The 1951 conference will be held in South Bend, Ind., on January 7, 8 and 9.

Officers Elected

The following officers were elected:

President—LeRoy Coates, Pressroom Supt., Grand Rapids (Mich.) *Press.*

Vice Presidents—Otto Lepp, Mailroom Supt., Milwaukee *Sentinel*; Frank Dassori, Pressroom Supt., Detroit *Times*; W. F. Alexander, Photoengraving Supt., Cleveland *Press*; Ed McCarthy, Stereotype Supt., Milwaukee *Sentinel*; Harry Miller, Mechanical Supt., Dayton (O.) *Daily News.*

Secretary-Treasurer—Al P. Oberg, Flint (Mich.) *Journal.*

Directors—Horace Parker, Press-Stereo Supt., Richmond (Ind.) *Palladium-Item*; Joseph McMullen, Asst. Production Mgr., Milwaukee *Journal*; Cecil Watkins, Mechanical Supt., Sidney (O.) *Daily News*; L. J. Griner, Production Mgr., Detroit *News.*

Exhibits Draw Attention

On hand for the Fifth Annual Great Lakes Newspaper Mechanical Conference were 150 manufacturers' and suppliers' representatives. They came to discuss equipment and technical problems with mechanical and production executives. A total of 25 exhibitors engaged 31 exhibit spaces, in which were displayed latest machines, devices, tools, and supplies. Throughout the three-day meeting the exhibit area of the Schroeder Hotel was crowded with interested conference members and visitors.

The firms exhibiting were as follows:

American Type Founders
Chemco Photoproducts Co., Inc.
Fairchild Camera & Instrument Corp.
Federated Metals Div., American Smelting and Refining Co.
Hammond Machinery Builders
Hills-McCanna Co.
Ideal Roller & Mfg. Co.
Imperial Type Metal Co.
Kellogg Switchboard & Supply Co.
Linotype Parts Co.
Mayville Metal Products Co.
Mohr Lino-Saw Co.
Morrison Company, The
Newspaper Publishers Supply Co.
Nolan Corporation
Printers Rule Co., Inc.
Printing Equipment Corp.
Richards, J. A., Co.
Rouse, H. B., & Co.
Sylte, Richard E.
Teletypesetter Corporation
Tingue, Brown & Co.
Turner Printing Machinery Co.
United American Metals Corp.
Vandercook & Sons, Inc.

Visit to Milwaukee Journal

On Sunday afternoon, immediately following adjournment of the Non-metropolitan Session, the production and mechanical executives were escorted through the plant of the Milwaukee *Journal*. Aside from viewing this modern newspaper publishing plant, executives had explained to them the methods and facilities used by the *Journal* in producing its run-of-paper color printing. The newly installed photoengraving department has been set up especially to handle color work of all kinds for newspaper publication. The composing room attracted the interest of a major number of the visitors as did the stereotype room with its direct pressure molding equipment. After the plant trip, a lunch was served in the *Journal* cafeteria. During conference days, executives also availed themselves of the invitation to inspect the plant of the Milwaukee *Sentinel*.

Non-metropolitan Session

Fairchild Electronic Engraver

AT THE opening session of the conference, President W. R. Coddington introduced Cecil Watkins, Mechanical Supt. of the Sidney (O.) *Daily News*. As chairman of the Non-metropolitan Newspaper Executives' Meeting, Mr. Watkins introduced D. B. Hollister. Mr. Hollister is sales manager of Fairchild Camera and Instrument Co., Jamaica, N. Y. He discussed operation of the Fairchild Electronic Engraving machine. This is the first mechanical

Deadline—A Myth

(Abstracted from address entitled *Deadlines from the Composing Room Standpoint,* by Deo A. Padgett, Cleveland *Plain Dealer* Composing Room Supt., before the Great Lakes Newspaper Mechanical Conference, Hotel Schroeder, Milwaukee, January 1950.)

"MAKING a speech is like a woman giving birth to a child—it is easy to conceive but hard to deliver.

"I have worked on several newspapers and have had charge of composing rooms on several. Practically all my life I have heard about deadlines that were supposed to be. I have never seen the real McCoy. In my opinion, the so-called deadlines on most newspapers are a myth.

"My little dictionary defines myth as 'an imaginary person, or event.' It has been proved true far too many times that this deadline business is something that applies to the mechanical departments alone, to the news department after a fashion, and to the advertising department in rare instances."

conference at which operating and maintenance data have been obtainable since introduction of the engraver about two years ago. Mr. Hollister explained that, originally, the inventors sought to develop an automatic engraving machine which would permit the smaller and medium size daily newspaper to produce engravings in greater quantity at lower cost.

He said there are 200 of the machines in use in as many daily newspaper plants in various parts of the country. He also explained frankly that there still are some bugs to be eliminated in operation of the machine. These are being conquered gradually. Of the 200 machines now in operation, all but 45 are printing direct from the engravings.

In response to a question asked from the floor, Mr. Hollister stated the machines are installed on a lease basis. He said the lease arrangement protects the user from obsolescence without capital investment. Field service men attend to the maintenance of the machines. When an improvement is made, all outstanding machines are equipped with the improved devices.

When asked about production costs of engravings made on the Fairchild machine, Mr. Hollister cited a number of instances where cost figures had been given to him. One newspaper executive stated that as against 19c per sq. in. cost of photoengravings, his paper produces the Fairchild engravings at 9c per sq. in. Another newspaper executive reported a cost ranging from 5½c to 8c per sq. in. He qualified these statements by saying that the actual per square inch cost varies according to the amount of engravings produced per machine.

All work on the Fairchild Electronic Engraver must be done photographically. Reproduction from the photo copy must be on a 1:1 basis. Work can be reproduced from a wet photograph mounted on the cylinder, the cellulose nitrate sheet (celluloid) being mounted on the other cylinder of the lathe-like machine. The travel of the heated stylus which burns the image into the celluloid is 1 in. in 3 min. In operating the machine, it is much more economical to produce three single column cuts around the cylinder. Speed of engraving in the case of one single column cut is 6 min. A full size sheet (8 in. by 10 in.) can be finished in 30 min. Mr. Hollister told that in one instance he made a single column cut from a wet photograph and mounted it on its base in a flat-bed form and was ready to start the press in 15 min.

For direct printing from the cuts, either flatbed or stereotype plates, Mr. Hollister said that the cuts are best mounted with all-over Scotch two-side tape. No case has been reported to him of a single cut having come loose on the press when mounted properly.

Cuts placed in the form previous to molding when stereotype plates are to be made, should be mounted on metal base so they will be approx. 0.002 in. less in height than the average height of the slugs in the form. Before sending the form to the stereotyper, the cuts may be fastened down on the base with a rosin type paste such as is used by pressmen in making web pasters. One executive in the audience volunteered the information that they can be fastened to the base with Booth's Zink Cut cement.

In explaining the handling of the Fairchild engraver when cuts are to be molded from, the speaker stated some difficulty in securing good reproduction still is experienced. His firm is working on this problem and expects to conquer it. He said that sometimes trouble is encountered when making stereotypes two removals from the original photoengraving, (where depth loss occurs) in the side walls of the halftone. The halftone dot is pyrimidal in shape. The stylus is ground to a 90 deg. angle. It is difficult to burn in a complete hole between the dots in 1/240 sec.

One mechanical superintendent, whose plant is using the Fairchild engraver, advised that the Fairchild plate be trimmed around the edges so that there will be at least 1/16 in. space between the edges of the cut and the adjacent column rules and the top and/or bottom rule or type lines.

Mr. Hollister, in response to a question from the floor, recommended that the stylus be changed every four or five sheets of engraving when cuts are to be reproduced by the stereotype process. When cuts are to be printed from direct, the stylus should be changed every 10 sheets. One of the difficulties encountered with unsatisfactory halftone reproduction is that the stylus is not changed frequently as recommended because the point erodes a certain amount from the heat with use.

Teletypesetter Operation

The second and concluding speaker on the program for the non-metropolitan newspaper mechanical executives was Cliff Entler, Chief machinist on the Decatur (Ill.) *Herald-Review*. Mr. Entler's subject concerned Teletypesetter operation in the non-metropolitan newspaper field and he elaborated by discussing the operation of Teletypesetter units at the Decatur (Ill.) Newspapers, Inc.

Some interesting figures revealed by the speaker concerned the average maintenance cost per year of both perforating and operating units at the Decatur Newspapers, Inc. Based on a 27 year period, the average maintenance cost for three perforators was $26.03 per year, while based on a 28 year period, the average maintenance cost for two operating units was $2.91 per year.

Referring again to statistics, Mr. Entler stated that from 1942 to 1948 the average Teletypesetter cost per 10,000 lines (operating 3 Teletypesetters) was $1.83 for parts and matrices. In comparison to this, from 1944 to 1948 the average manual cost per 10,000 lines (operating two machines) was $1.32 for parts and matrices. Elaborating further, he said that from 1945 to 1948 the average headletter cost per 10,000 lines (operating one machine) was $5.35 for parts and matrices.

The average net production in Teletypesetter operation at Decatur is 6 lines per min. To accomplish this, Mr. Entler emphasized the necessity for keeping composing machines in top-notch working condition. He said it was sometimes necessary to spend very high sums to put a machine in shape to accommodate this type of composing room operation.

The Decatur Newspapers transmit over wire from Decatur, Ill. to Urbana, Ill., a distance of 162 miles and also from Decatur to Carbondale, Ill., a distance of 55 miles. Operators average approx. 2800 lines for 8 hrs. work. Four perforators are in operation, with four operating units on the composing machines.

In the general discussion which followed Mr. Entler's talk, Frank Foster of Teletypesetter Corporation, remarked that the present trend to Teletypesetter installation is gradually entering the larger metropolitan newspaper field. He predicted that classified composition will soon be set in this manner, but emphasized that personnel is still the biggest problem facing such installations. Trained help is needed, he asserted, to operate these machines.

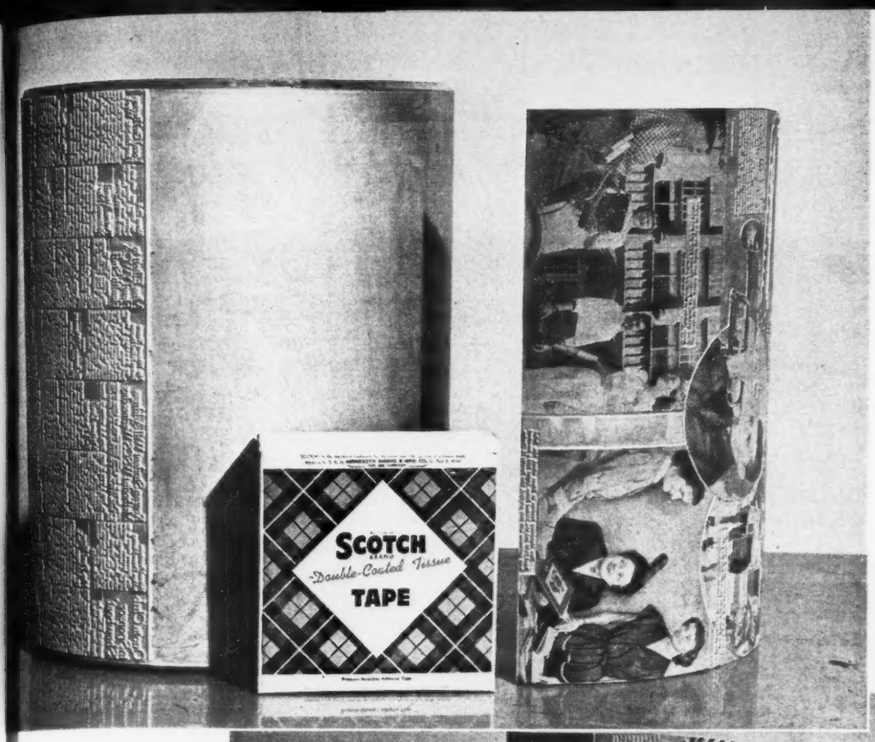
The training course for operators in Decatur was explained at this point. Union operators are employed and are given a one year trial period to determine if they are suited for such work. It usually requires five or six months to produce efficient operators. The Decatur Newspapers have seven tape punchers distributed over day and night on 13 different shifts.

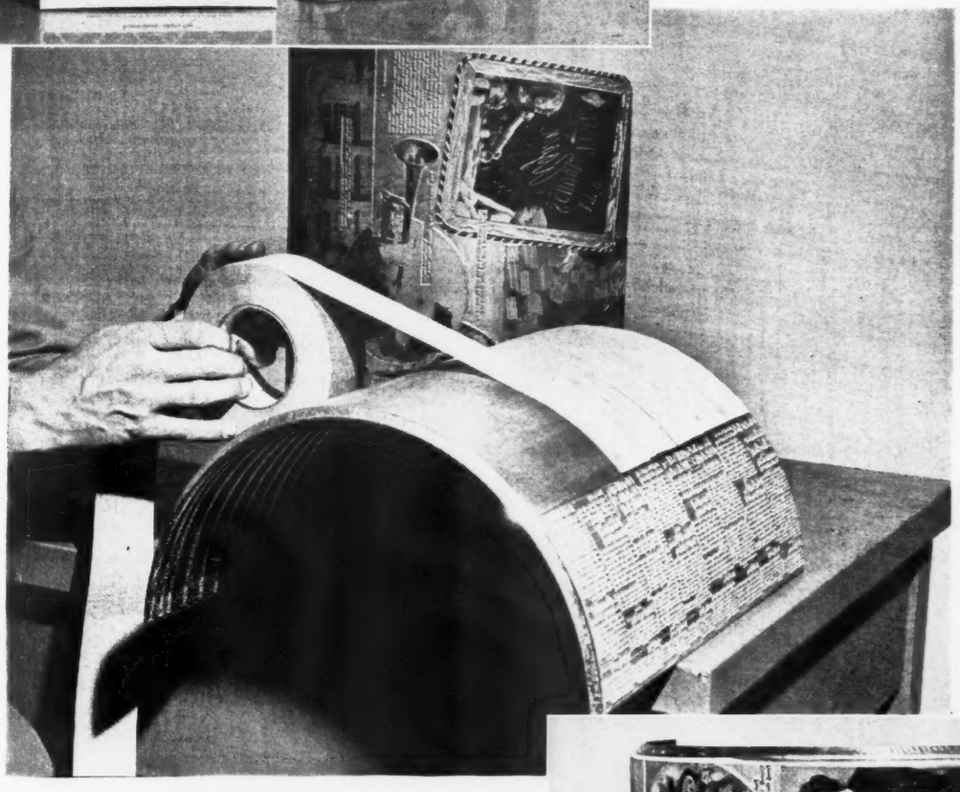
Engraving and Personnel

Engraving Session

W. F. ALEXANDER, Photoengraving Supt. of the Cleveland *Press*, presided over the Engraving Session.

In opening the meeting, he made some pungent comment regarding newspaper illustration which are of enough importance to cause photoengraving and other newspaper executives to revise their mental attitude. In too many cases, because of tight editorial content, the news or art editor hasn't much space available for pictures. He decides to combine them into a small area. The result is two or three small pictures instead of using one to attract the reader's interest. The newspaper industry seems to be shackled by precedent. Every other industry has been forced to improve its product. He suggested that mechanical men begin to fight for innovations which will improve the newspaper. "Every day," said he, "management points its finger at high mechanical costs. Let's fight for the salvation of the newspaper. Perhaps color printing will help. It is far easier to sit down and admire a beautiful sunset than it is to get that color on newsprint





Printing Direct from 0.064 in. Original Zinc Photoengravings at Kalamazoo (Mich.) *Gazette*

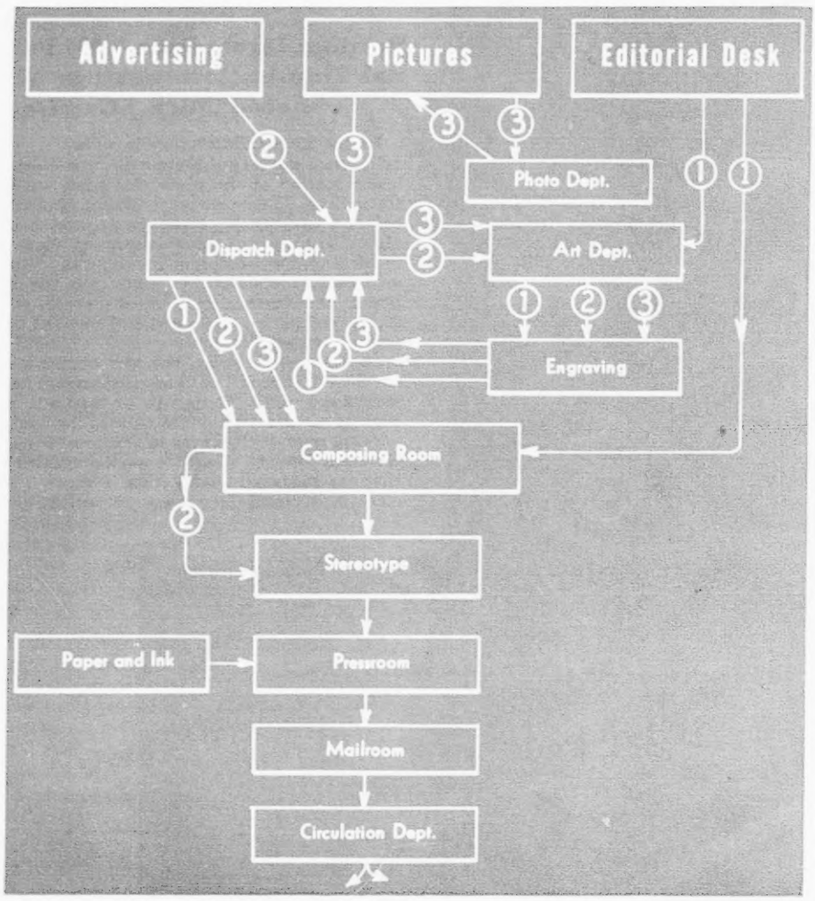
In the upper illustration is shown a cast semi-cylindrical stereotype plate with type matter on the lower portion of the plate. At right is a 0.064 in. thick Zinc, 75 line screen halftone photoengraving before assembly to make the combination press plate. The curved photoengraving (see separate illustration for method of curving the plate) will be secured to the stereotype plate over the depressed blank area with double-sided Scotch tape. The stereotype plate is trimmed and finished before the engraving is affixed to it.

In the center picture, the stereotyper is applying the Scotch tape to the blank (depressed) part of the stereotype plate. The strips of tape are separated slightly so the tape edges cannot lap and cause a varying overall thickness in the combination plate. Kenneth Brouse, *Gazette* photoengraver, reports that no engraved plates have separated from the stereotype plates during a press run. At lower right is shown how the assembled plate looks after the engraving has been cemented to the stereotype plate. It is now ready for mounting on the press plate cylinder.

Mr. Brouse explained at the Milwaukee Great Lakes Mechanical Conference that to print original halftones successfully from combination plates all of the department executives must work closely together. He said Stereotype Supt. Cook and Press-room Supt. Bildner perform their functions so that the efforts of all three men will produce maximum appearance in the paper.

Brouse prefers a soft textured zinc stock although hard zinc has been used with good results. He etches the plates approx. 0.040 in the open areas to eliminate the necessity for routing when edition time is short and the paper must be gotten to press. Most of the halftone work has been done from a 75 line screen, although a 65 line screen has been used.

Mr. Brouse exhibited tear sheets from quite a few editions of the *Gazette*. These consisted of page 1, editorial, society and news pages. The printed appearance is excellent.



Milwaukee *Journal* Workflow Chart — This workflow chart was reproduced from a large diagram shown at the recent Great Lakes Newspaper Mechanical Conference at Hotel Schroeder, Milwaukee. It was used by Vice President and Production Manager John Keating during his discussion before a conference session to explain production flow in the *Journal* plant. Interested newspaper production and mechanical executives will find the chart self-explanatory.

at the rate of 600 papers per minute. It isn't easy to get management to accept this added cost—we will have to prove that it will pay for itself. If the trend toward minute engravings isn't discouraged, we will be printing one-half column cuts all over the paper—and I believe the only place for a half-column cut is in the obituary column. I believe it is only precedent that forces the constant reader to have to look at the faces of some of our columnists day in and day out—ad infinitum and ad nauseum. These are probably nice people, but what has the reader done to deserve this type of punishment? If some of the things we propose for the improvement of the newspaper prove not to be practical, let's try other ideas. I ask you in all seriousness to keep fighting for any change that will improve the appearance of the newspaper."

The first speaker to be introduced was Kenneth Brouse, Photoengraving Supt. of the Kalamazoo (Mich.) *Gazette*. Mr. Brouse discussed the making of photoengraved plates and printing directly from them in association with stereotype plates.

He explained that the *Gazette* had been printing directly from photoengravings on its rotary presses for about seven months. Included are the Sunday Society, Cover Pages, Picture Pages, Editorial Page Pictures and numerous page 1 illustrations, as well as a full-page display ad executed in benday art work.

By printing direct from zinc engravings, he believes the reproduction is decidedly better than from the equivalent stereotype reproductions. This is due to avoidance of mat shrinkage, loss of depth, sharpness and detail (especially in the lower tones) which occurs in the stereotyping process. Another reason for

Some Newspaper Mechanical and Production Executives Attending the Fifth Annual Great Lakes Newspaper Mechanical Conference in Milwaukee on January 15-17

1.—Still crippled from an accident suffered some time ago, William Inghram, Sales Mgr., (center) and Charles Scherb, (left) Sales Representative, both of Wood Flong Corp., listen to Milwaukee *Journal's* Harry Wrasse tell how such accidents can be avoided in Washington, D. C.

2.—Edward L. Matlock, Mechanical Supt., Mansfield (O.) *News-Journal;* Walter F. Dreyling, Composing Room Supt., Lorain (O.) *Journal;* Ralph Robuck, formerly Northern Ohio Intertype Representative.

3.—W. E. Tookey, Stereotype Supt., Flint (Mich.) *Journal;* Walter S. Petersen, Sales Representative, United American Metals Corp.

4.—Earl Weiskittel, Pressroom Supt., Youngstown (O.) *Vindicator;* Edward H. Bogard, Pressroom Supt., San Jose (Calif.) *Mercury Herald* and *Evening News;* Ernest F. Boverman, Printing Accessories Div., Minnesota Mining & Mfg. Co.; Vernon Spitaleri, Manager, ANPA Mechanical Dept.

5.—Platform Personalities at Non-metropolitan Newspaper Session.—Chairman Cecil Watkins, Mechanical Supt., Sidney (O.) *Daily News;* Immediate Past President, W. R. Coddington, Composing Room Supt., Youngstown (O.) *Vindicator;* Dudley B. Hollister, Sales Mgr., Fairchild Camera and Instrument Corp.; Frank B. Foster, Teletypesetter Corporation; Cliff Entler, Chief Machinist, Decatur (Ill.) Newspapers, Inc.

6.—George T. Mitchell, Pressroom Supt., Louisville (Ky.) *Courier-Journal* and *Times;* Walter E. Wines, Chas. T. Main Co.; H. C. Leppert, Asst. Production Mgr., Louisville (Ky.) *Courier-Journal* and *Times*.

7.—William H. Rouse and C. P. Feldhausen, Press Drives Development, Cutler-Hammer, Inc.; Carl Borckart, Certified Dry Mat Corp.

8.—Al P. Oberg, Flint (Mich.) *Journal,* Secretary-Treasurer, Great Lakes Conference; Joseph E. McMullen, Assistant Production Mgr., Milwaukee *Journal;* Auburn Taylor, Pressroom Supt., Charleston (W. Va.) *Gazette;* Frank Dassori, Pressroom Supt., Detroit *Times*.

9.—Augie Guis, Secretary, Milwaukee Printing Trades Council; Carl C. Johnson, Mechanical Supt., Escanaba (Mich.) *Press;* Manny Caldwell, Sales Representative, Sam'l Bingham's Son Mfg. Co., Chicago; Alex Primm, Production Mgr., St. Louis *Post-Dispatch*.

10.—Frank Duncan, Mechanical Supt., Portsmouth (O.) *Times;* Ed Evers, jr., Asst. Production Mgr., St. Louis *Globe-Democrat;* Charles J. Borntraeger, Sales Representative, Mergenthaler Linotype Co.; George Morrison, President, The Morrison Co.; C. G. Linham, Business Mgr., Portsmouth (O.) *Times*.

11.—I. J. Chalfoux, Chief Machinist, Cleveland *Plain Dealer;* William J. Easton, Chief Machinist, Milwaukee *Journal;* Joseph Corey, Chief Machinist, St. Paul (Minn.) *Pioneer Press* and *Dispatch;* John Peecook, Chief Machinist, Cleveland *News*.

12.—W. T. Dumser, Sales Representative, Cline Electric Mfg. Co.; Art Hillis, Night Pressroom Foreman, Madison (Wis.) *State Journal;* Jack Parks, President, Cline Electric Mfg. Co.; Mike Luloff, Pressroom Superintendent, Madison (Wis.) Newspapers, Inc.

13.—H. V. Maurer, Curtis Development & Mfg. Co., Milwaukee; Arthur McAnally, Mailroom Supt., Cleveland *Press;* H. C. Curtis, Curtis Development & Mfg. Co.

the excellence of direct printing from engravings over stereotype reproduction is that a finer halftone screen can be used.

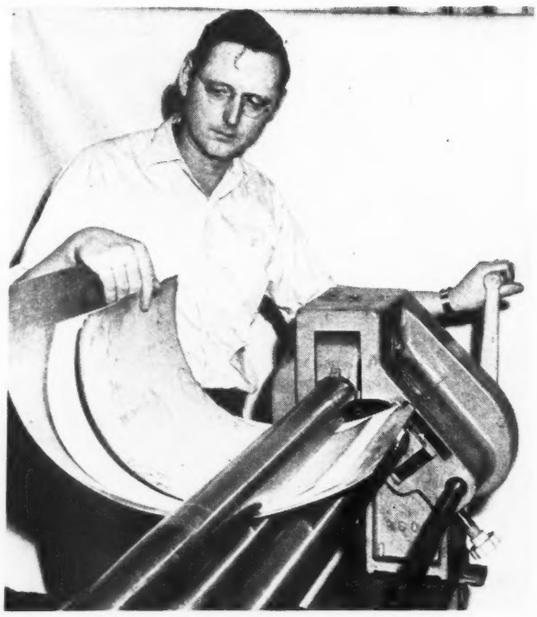
He explained that he had used magnesium and hard zinc plate stock with good results. But he prefers Zomo zinc because it is a little softer in texture and conforms to the curvature of the stereotype plate saddle more easily. It has been the experience of Pressroom Supt. Bildner that the zinc shows very little sign of wear after 45,000 impressions on the press.

For layouts, the artwork, illustrations and cutlines are stripped together and processed like any combination plate with one exception. The open areas are etched to a depth of 0.040 in. to eliminate routing.

Before the zinc plate is curved, a mat is rolled from the engraving just as a precautionary measure in case of accident of any kind in the pressroom.

Curving of the plate is done on a slip form roller such as is used by a sheet-metal company in forming stovepipe and the like.

The stereotype dummy (or saddle) for a full or partial plate is cast by Stereotype Supt. Cook with two sheets of 0.035 in. cardboard on the back of the mat in the space where the zinc plate is to be mounted. For individual cuts, two pieces of sheet packing (0.035 in. thick each)



Kenneth T. Brouse, Kalamazoo (Mich.) *Gazette*, curving a full-page, 16 ga. zinc halftone engraving. The curved engraving will be mounted on a stereotype plate saddle by means of double-faced Scotch tape. Plate and saddle together will be equivalent to the thickness of a standard stereotype plate when the plate is mounted on the press cylinder. Thus, the *Gazette* is enabled to print direct from photoengraved halftones in its regular editions. Combination pages — that is partly composed of zinc halftone illustrations and regular type matter cast in the stereotype plate — are printed from regularly.

In curving a zinc plate, Mr. Brouse uses a 0.020 in. galvanized iron sheet; on this he places a sheet of blotting paper to protect the face of the zinc engraving, finally placing the zinc engraving face down on top of the blotting paper. He passes the combination three times through the Initial type roller to obtain proper press plate curvature. After each pass, he adjusts the right-hand roll in the illustration 1/8 in. higher in relation to the two vertically positioned rolls. In other words, curving the plate is done gradually rather than attempt abrupt curvature with one pass through the machine.

are placed on the back of the mat in the space allowed for the cuts.

Mounting of the curved zinc plates on the stereotype plate dummy is done in the pressroom with double-coated Scotch tape. After the plate has been mounted in the press and a few impressions have been taken, the zinc plates are securely pressed into place.

Telephoto Pictures

The next speaker was Meade Monroe, Business Manager, Acme Telectronix Div., NEA Service, Inc., Cleveland. While Monroe discussed wire picture transmission for daily newspapers, an operator busied himself with a picture receiving machine set up on the platform from which Mr. Monroe delivered his address. The speaker asserted that news pictures are no longer "art". They're news. Photos and text are combined and correlated to produce a finished product which tells a complete word and picture story to readers.

To impress his listeners with the effectiveness of news pictures, Mr. Monroe told about the results obtained by Continuing Study of Newspaper Reading Habits conducted under the auspices of the ANPA. In one metropolitan newspaper recently surveyed, the highest readership in the entire paper was scored by two picture pages, with a readership of 94 per cent for men and 95 per cent for women. Also shown by surveys is that pictures not only attract great interest to themselves but they greatly increase readership of the stories they illustrate.

Until recently, one of the obstacles to effective use of news pictures has been the lack of engraving facilities in many plants. With the advent of the Fairchild engraver plus installation of normal photoengraving plants in many newspapers, it was obvious that a solution to the problem of wire costs and manpower costs was imperative. It was also apparent that it was necessary to transmit more pictures in less time. After lengthy experiments, it was decided to adopt a 9 in. by 12 in. drum. With this size drum, a picture area of 8 in. by 10 in. with a caption area of 2 in. by 8 in. was adopted. The pictures are assembled on a single transmission print, cropped to the most interesting picture area and reduced to standard one- two- or three-column size with caption material included. The transmission time to the newspaper office takes 12 min., and the developing time 3 min. more. The 8 in. by 10 in. print is then attached to the Fairchild engraver. In 30 min. the plastic halftone engraving is ready for printing or put in the form for stereotype molding.

Thus, in the matter of costs, a newspaper need only assign an operator to the telephoto machine for 15 or 20 min. per day in order to get five to seven news pictures. Another advantage of the new picture transmission system is that a paper with a deadline of 1 p.m., for instance, will be able to wait until noon before starting to take telephoto transmissions.

Electronic Color Separation

Mr. Monroe explained the workings and purposes of Acme Telectronix. It is a research and manufacturing division of NEA Service, Inc. At the present time, some 35 research engineers are at work in the Cleveland laboratory. One of Mr. Monroe's most interesting statements was announcement of a new method of electronic color separation which will go far toward advancing the day when newspapers can furnish daily four-color run-of-paper printing.

Personnel Session

Following the engraving room session on Monday morning, a session devoted to personnel relations was held under the chairmanship of Leon Link, Production Manager of the Cleveland *Plain Dealer*. In his opening remarks, Link confessed that the Great Lakes Conference was still pioneering in the matter of personnel relations, and still is endeavoring to achieve better understanding and fairness between management and labor.

Recent Developments in Newspaper Personnel Relations comprised the first topic and was delivered by Peter Burgess, Personnel Director of the Detroit *News* and Chairman of the Executive Committee, Newspaper Personnel Relations Association. Newspapers, Burgess asserted, have treated employees better than most other industries. He urged mechanical and production executives to look to personnel departments to solve their personnel problems and coordinate employee activities.

Emphasizing the importance of a personnel department, the speaker read from a list, newspapers in the United States who today have such departments and he asked the audience to note that these comprised the leaders in the industry. Many not having personnel directors have designated some other qualified person in the organization to carry on the duties of the director. Personnel must be organized and centralized. New social and economic trends have made it necessary to bring personnel relations in line.

The one person responsible for personnel in any organization must have understanding, ability to handle many different problems, and interest himself in the problems of others. His department must be responsible for putting the right person in the right job and seeing to it that the individual is contented with his work. His department should provide better selection of supervisory employees. It provides the link between employees and management and should be able to prevent many hostilities which might arise. The department handles employee pensions, insurance, hospitalization, employee activities, and other duties which are impossible for a mechanical executive to take care of.

Mr. Burgess told how personnel departments can bring supervisors into their rightful place into the employee relation picture. The department can teach the foremen how to handle men. He acknowledged that it might require a change in some men, but asserted that the change had to come.

Good personnel relations requires loyalty of employees and supervisors to the company for which they work. Do not condemn the institution for which you work, he said. To be a foreman, you must first be a leader. Praise your men when they have done a good job, be fair with them, and be honest in your dealings with them. Ask yourself if your men

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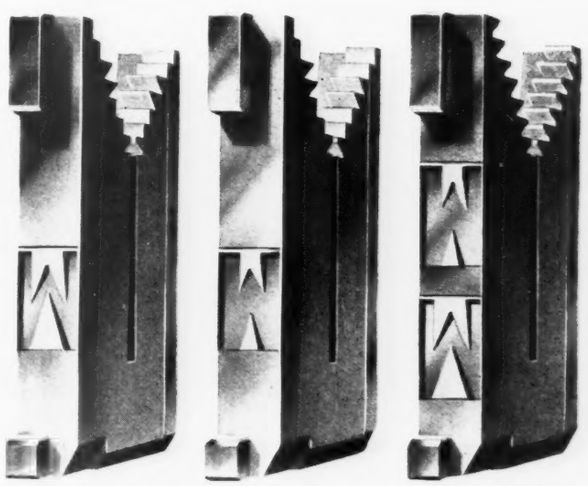

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A foreman's job on a newspaper is usually tough, stated Burgess. In many instances foremen are neglected by higher management. For some there is lack of security and prestige. It is an important function of the personnel department to keep the channels open between foremen and management. And it is management's job to put the departmental foreman on the team where he belongs.

In closing, Mr. Burgess urged the assembled executives to let the personnel manager of their newspapers know how they feel toward employee relations in order that it may be discussed at the next meeting of the Newspaper Personnel Relations Association.

Production Operation

John Keating, Vice President and Production Manager of the Milwaukee (Wis.) *Journal*, was the next speaker on the program and spoke on the subject, *Production Operation*. He told of the functioning of the personnel department on the *Journal* and praised the accomplishments of this part of the organization.

He said the *Journal* was not posing as an organization of efficiency men, but merely as one which is doing its work as it is required to be done. Presenting an enlarged workflow chart through the mechanical departments at the *Journal*, he emphasized the importance of the dispatch department to good newspaper production operation.

This department, he explained, services all other departments. It maintains a constant flow of copy to the composing room so that no dead moments occur. The department supplies copy for the photoengravings. It keeps in contact with every department of the newspaper and informs the pressroom what the press runs will be.

Coordination of all the work at the *Journal* is really what this particular department adds up to. Mr. Keating stated that many of the supervisors on the newspaper were at one time or another connected with the dispatch department. Without this department, the composing room would not be as well run as it is, he stated. In order that the dispatch department functions properly, no other department must interfere with its operation.

In reference to personnel relations, the speaker asserted that he never hesitates to ask a man if there is something wrong if he should appear troubled. He said an employee should be praised when praise is called for, but cautioned the conference members in the manner in which this should be done.

Partners in Ownership

Following Mr. Keating's talk, another member of the Milwaukee *Journal* was heard from. Donald B. Abert, Business Manager, spoke on *Partners in Ownership*. Relating the story of how the *Journal* came to be owned and controlled by the people on its staff, Mr. Abert revealed that 719 employees of the newspaper now own 55 per cent, or controlling interest, of its common stock.

Over 90 per cent of employees eligible by length of service to hold stock have purchased shares when these were available. He declared that this plan, instituted by Harry J. Grant, Chairman of the Board of The Journal Co., has given to employees a feeling of economic security. Through their dividends they have built up larger reserves than they could have hoped to reach by salaries alone.

Some stockholders have borrowed at low interest on their holdings to pay for homes which are thus cleared far ahead of schedule. In other cases, loans on *Journal* stock have bridged crises of sickness, accidents or death. The *Journal* has a liberal pension plan, hospital and surgical care insurance, which are paid for totally by the company. One-half of a group life insurance plan is paid for by the company. Also provided are first aid and incidental health service, including free pre-employment medical examinations, and sick leave with full pay is granted according to individual situations in all departments. *Journal* dividends have brought within reach bigger insurance and estate programs, broadening travel and stimulating vacations, and higher education for children.

Job Security

W. N. Thomson, Assistant to the Publisher of the Milwaukee (Wis.) *Sentinel*, was the concluding speaker at this session and chose as a topic *Job Security*. He warned the assembled mechanical and production executives to see to it that no single group jeopardizes job security. No job can be guaranteed, he asserted. Each worker must earn the right to his respective job. To insure job security it must be earned and protected.

He told the conference members that they must be loyal to management, and, at the same time, loyal to employees and unions. You are agents for management and at the same time, agents for your fellow employees.

In the discussion period which followed, Mr. Burgess was asked how personnel problems were handled by the personnel director. He replied by explaining that the supervisors are now handling many of these functions. The personnel department relieves him of these duties and leaves him free to cope with the individual problems of the worker. Do these duties conflict, he was asked? If handled correctly they shouldn't. The personnel department should not interfere with the foreman in any way but should help rather than hinder him. He warned that if a worker has taken a superior into his confidence, he must not repeat to management anything that the worker has told him. Group activities are a great help in bringing the employees together to know each other.

Composing Room

PRESIDING over the composing room session were Ed Griesmeyer of the Cincinnati (O.) *Enquirer*, and Harry Miller of the Dayton (O.) *News*. Opening speaker on this program was Harold Hoots, Production Manager on the Decatur (Ill.) Newspapers, Inc., who talked on *Teletypesetter Operation at the Decatur Papers*.

When Teletypesetters were installed in Decatur in 1934, the newspaper promised that this operation would not replace any employees. Mr. Hoots declared that up to the present time the newspaper has kept its promise. Four perforators and four operating units are used at Decatur; two perforators and two operating units at Urbana, Ill.; and two perforators and two operating units at Carbondale, Ill. Associated Press news is edited in Decatur and transmitted over wire to the other two towns.

The Decatur Newspapers publish 13 editions, which include morning, evening and Sunday papers. A total of 50 columns of type are set for each daily edition and 75 columns for the Sunday edition. More reading matter is produced, Hoots stated, without any additional cost at the Decatur papers by using Teletypesetter operation.

He has found it necessary to have standby equipment on hand in the event trouble occurs in any of the units, so production will not be held up.

Deadlines

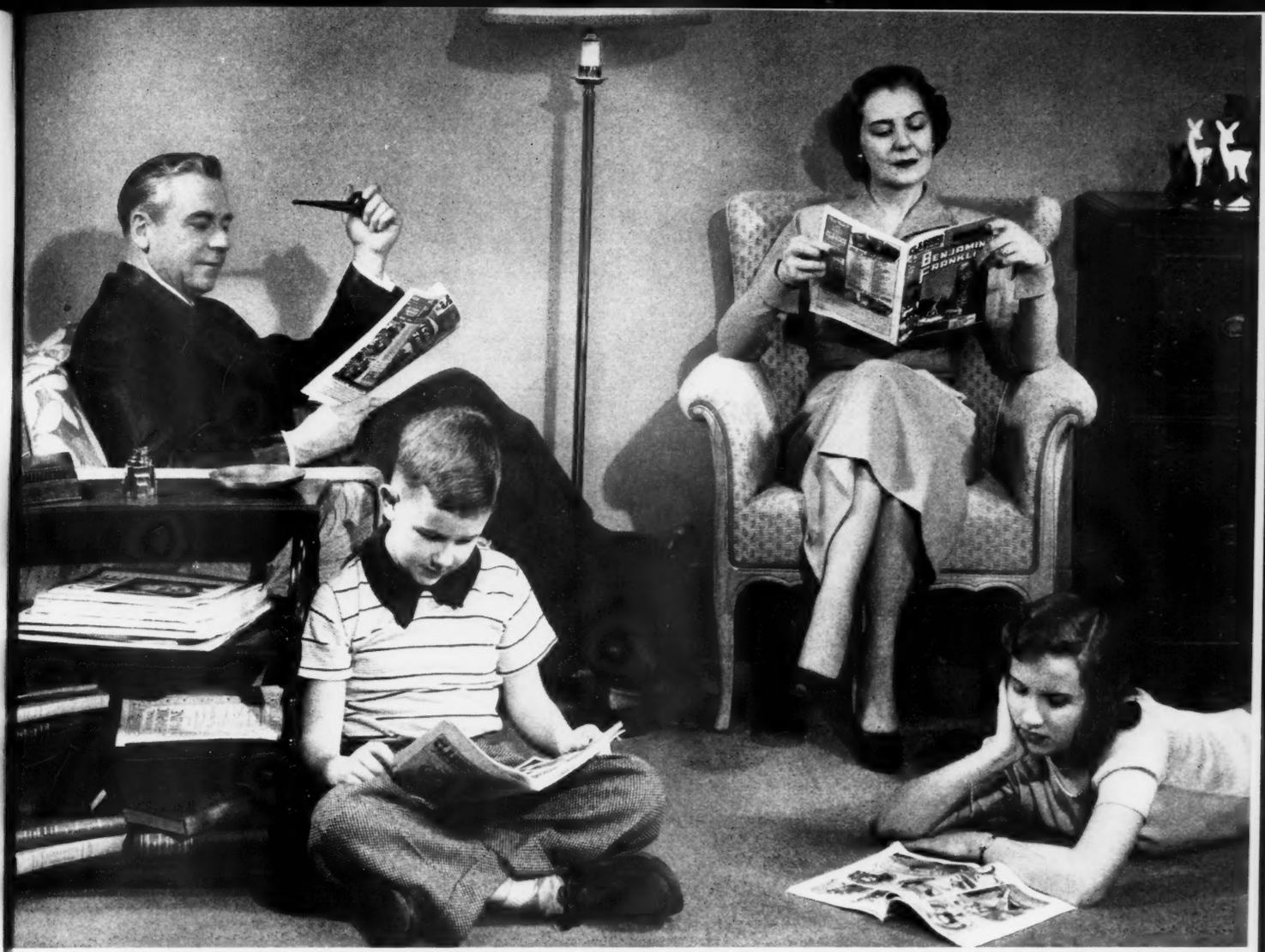
Deadlines and Their Relations to Cost composed the topic of the next speaker. M. George Martin, Production Manager of the Louisville (Ky.) *Courier-Journal* and *Times* related to the Conference the schedule of advertising copy and corrections deadlines. Prior to the establishment of such a schedule, advertising copy was a serious problem at the *Courier-Journal*.

It was decided to establish a certain day and time before the day of publication as a deadline for acceptance of copy. The advertising director visited the larger stores, explained the problem, and asked for their cooperation in the endeavor. They readily agreed and no difficulty was encountered.

The schedule works in the following manner. If Wednesday is to be the day of publication, advertising copy must be in by 6 p.m. on the preceding Saturday. Proofs must be ready in the dispatch room by 8 a.m. on the Tuesday and 2 p.m. of the same day as the deadline for corrections. The deadline for acceptance of copy without proofs and without corrections for Wednesday publication is Monday at 6 p.m.

The schedule for the regular sections of the Sunday papers is set as Wednesday

(*Continued on Page 74*)



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GRAPHIC ARTS DIVISION
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ROCHESTER 4, N. Y.

Kodak
TRADE-MARK

Conference Dates *(with organization names and principal officers)*

American Photoengravers Association — 1950 Convention to be held at Chalfonte-Haddon Hall Hotels, Atlantic City, N. J., October 9, 10 and 11. W. K. James, President; Frank J. Schreiber, Executive Secretary, 166 W. Van Buren St., Chicago 4, Ill.

ANPA Mechanical Conference—1950 Conference to be held at Hotel Statler, Buffalo, N. Y., June 12, 13, and 14. Chairman of the Committee, Edwin H. Evers, Production Manager, St. Louis *Globe-Democrat*. Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftsmen's Conference—1950 Conference to be held at Commodore Perry Hotel, Toledo, Ohio, June 16 and 17. District Representative, Alvin F. Friedrich, 730 E. Washington Blvd., Indianapolis, Ind.; Deputy District Representative, John Morehouse, c/o Harris-Seybold Co., 4510 E. 71st St., Cleveland 5, O.; President, John E. Frisbie, The Blade Printing & Paper Co., Monotype Dept., Toledo, Ohio; Secretary-Treasurer, John Fisher, Superintendent, Reardon-Parshall Co., 466 Larned St., N.W., Detroit, Mich.

Great Lakes Newspaper Mechanical Conference—1951 Conference to be held in South Bend, Ind., January 7, 8 and 9. President, LeRoy Coates, Pressroom Supt., Grand Rapids (Mich.) *Press;* Secretary, Al. P. Oberg, Flint (Mich.) *Journal;* Chairman, Mfrs. and Suppliers Committee, Clay Wellman, Ludlow Typograph Co., 2032 Clybourn Ave., Chicago 14, Ill.

Illinois Newspaper Mechanical Conference — President Arthur Kramer, Joliet (Ill.) *Herald-News;* Secretary-Treasurer, William L. Augspurger, Peoria (Ill.) Newspapers, Inc.

Intl. Assoc. Electrotypers & Stereotypers — 1950 convention to be held aboard the ship Queen of Bermuda and the closing session ashore at the Princess Hotel, Bermuda. Ship departs from New York, N. Y., Saturday, October 28, 3 p.m. Return trip, boat docks in Bermuda on Friday, November 3 at 9 a.m. A. P. Schloegel, Executive Secretary, 701 Leader Bldg., Cleveland 14, Ohio.

International Association of Printing House Craftsmen—1950 Convention to be held at Hotel Stevens, Chicago, September 10, 11, 12 and 13. President, Russell J. Hogan, Plant Manager, Blanchard Press, New York, N. Y.; Executive Secretary, Pearl E. Oldt, 18 E. Fourth St., Cincinnati 2, Ohio.

International Typographic Composition Association—1950 convention, Chicago, Sherman Hotel, Sept. 14, 15 and 16. President, Frederick H. Lutz, Lutz Composition, 93 Centre St., Brockton 35, Mass.; Frank M. Sherman, Executive Director, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference — 1950 meeting in Ottumwa, Ia. President, Howard (Red) Lee, Composing Room Supt., Ottumwa (Ia.) *Courier;* Secretary-Treasurer, Paul F. Kamler, Mechanical Supt., Clinton, (Ia.) *Herald.*

Kansas Newspaper Mechanical Conference — 1950 Conference to be held at Kansan Hotel, Topeka, Kan., September 30 and October 1. President, G. M. Harris, Salina (Kan.) *Journal;* Secretary-Treasurer, Larry Miller, 701 Jackson St., Topeka, Kan.

Lithographers National Association — 1950 Convention to be held at Edgewater Beach Hotel, Chicago, September 7, 8 and 9. President, Randolph T. Ode, President, The Providence Lithograph Co., Providence, R. I.; Executive Director, W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Missouri Newspaper Mechanical Conference — Secretary-Treasurer, O. K. Hammitt, Mechanical Supt., Moberly (Mo.) *Monitor-Index.*

National Association of Litho Clubs — 1950 convention to be held at Copley Plaza Hotel, Boston, April 14 and 15. Executive Secretary, William J. O'Holleran, Assistant Supt., Myercord Co., 5339 W. Lake St., Chicago 44, Ill.

National Association of Photo-Lithographers — 1950 Convention to be held at The Shoreham, Washington, D. C., October 25, 26, 27 and 28. Executive Vice President, Walter E. Soderstrom, 317 West 45th St., New York 19, N. Y.; Executive Secretary, William J. Stevens, 317 West 45th St., New York 19, N. Y.

National Graphic Arts Education Association — 1950 convention, Chicago, Sherman Hotel, Sept. 21, 22 and 23. John G. Henderson, President; Fred J. Hartman, Educational Director, 719 Fifteenth St., N. W., Washington 5, D. C.

National Graphic Arts Exposition—International Amphitheatre, Chicago, September 11 to September 23, 1950. Headquarters for National Graphic Arts Exposition, Inc., at Room 802, 105 W. Monroe St., Chicago. President, A. E. Giegengack; Secretary, S. Frank Beatty, Graphic Arts Assoc. of Illinois, Chicago.

National Printing Equipment Association, Inc. — President, R. Verne Mitchell, Harris-Seybold Co., 4510 E. 71st St., Cleveland 5, O.; James E. Bennet, Secretary, 140 Nassau St., New York 7, N. Y.

New England Mechanical Conference — President, Arthur M. Kohler, Production Mgr., Waltham (Mass.) *News-Tribune;* Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Northwest Mechanical Conference — 1950 Conference, Hotel St. Paul, St. Paul, Minn., March 11, 12, and 13. President, Joseph J. Cory, Chief Composing Room Machinist, St. Paul (Minn.) *Dispatch* and *Pioneer Press.* Secretary-Treasurer, Ralph Carson, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Mechanical Conference —1950 Conference to be held at Fairmount Hotel, San Francisco, May 6, 7 and 8. President, Fred Gross, Mechanical Supt., San Francisco *Chronicle;* Vice President for the Pacific Northwest, Harry Hale, Production Mgr., Portland (Ore.) *Oregonian;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles *Daily News.*

PNPA-NJPA Joint Mechanical Conference —1950 Conference to be held at Hotel Claridge, Atlantic City, N. J., April 14 and 15. Conference director, Theodore A. Serrill, PNPA Associate Manager, Telegraph Bldg., Harrisburg, Pa.

Printing Industry of America — 1950 convention, Chicago, Palmer House, Sept. 17, 18, 19 and 20. James R. Brackett, General Manager, 719 Fifteenth St. N. W., Washington, D. C.

SNPA (Eastern Div.) Mechanical Conference— Chairman, L. H. Pickens, Mechanical Supt., Greenville (S. C.) *News-Piedmont;* Secretary, Tom Tanner, c-o SNPA, P.O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conference—Secretary, C. W. Tabb, 621 Texas Bank Bldg., Dallas, Tex.

Technical Association of the Lithographic Industry — (TALI)—1950 meeting to be held April 24 and 25 in Rochester, N. Y. President, Michael H. Bruno, Lithographic Technical Foundation, Glessner House, 1800 So. Prairie Ave., Chicago 16, Ill. Secretary-Treasurer, Geo. W. Wilhelm, 814 N. East Ave., Oak Park, Ill.

EXCEPTIONAL BARGAIN IN PRESS EQUIPMENT

12 HOE WEB PRESS UNITS

All in excellent operating condition

23 9/16" cutoff, with Cutler Hammer drive and control, Koehler reels and tension.

Capable of delivering 26,000 to 28,000 papers per hour

- **Press has 4 double folders and can be divided into multiples of 3 or 4 units**
- **Double width**
- **Roller bearings**
- **4 120-H.P., D.C. motors**
- **4 10-H.P., D.C. starting motors**
- **Patented ink pumps**
- **New, cross-associating equipment for tabloid printing (eliminates angle bars).**

Complete stereotyping equipment available for entire press.

These units were used to print the Minneapolis Times until the merger of the Times with the Star and Tribune. Due to the difference in cutoff, they cannot be added to the Star and Tribune plant. They will provide many years of splendid service and deliver a highly satisfactory printed product.

Minneapolis Star *and* Tribune

• FOR PRICES AND ADDITIONAL INFORMATION, telephone or wire collect or write C. A. Peterson, Minneapolis Star and Tribune, Minneapolis, Minn. Your equipment supplier or broker also may be able to give you additional information.

Surface Bonding Strength of Paper

(Pick Test)

THE surface bonding strength of paper is the resistance of paper to removal of coating or fibers or to cleavage parallel to the sheet direction.

Paper is said to pick when the coating, fibers, or small portions of the paper itself, separate from the body of the sheet while it is being printed. Coated paper picks due to the fact that the adhesion of the ink to the coating is greater than the adhesive power of the coating for the paper, or because there is insufficient bonding strength in the base stock to prevent its splitting. Picking of the coating is not always due to a weakness of the coating material, but may be caused by the use of an excessively tacky ink. If such is the case, the tackiness of the ink must be reduced, since the physical interaction between the ink and the paper coating depends upon their relative cohesive powers.

Picking leaves small white spots on the printed image and is especially noticeable in solid areas. The particles lifted from the sheet may lodge on the printing plate or be carried back through the inking system of the press. If there is much picking, it necessitates frequent wash-ups of the plates and even the rollers and the ink fountains. Picking also clogs the type and halftones, producing mussy printing.

The surface bonding strength test has become a matter of importance since the development of multicolor printing and the speeding up of equipment. It is performed by melting the tips of a series of wax sticks and then placing them on the surface of the paper to be tested. The waxes have graded adhesive powers, so that when they have cooled and are pulled from the sheet there is an increase in the amount of pull administered to the surface fibers or coating. The highest number of the wax in the series which fails to break the surface of the paper is the numerical rating of pick.—M. S. Kantrowitz, Chairman, Research Committee, Washington Club of Printing House Craftsmen.

EXHIBIT SPACES
For ANPA Mechanical Conference
Now Being Reserved

PRINTING EQUIPMENT *Engineer* again has charge of the sale of exhibit booths for the ANPA Mechanical Conference. The Conference will be held at the Statler Hotel, Buffalo, N. Y., June 12, 13 and 14. For exhibition purposes, 86 booths have been allotted.

A folder giving complete and detailed information, including a plat showing the booth space areas, has been mailed to those interested in exhibiting equipment and/or supplies. Reservations are being accepted on a first come—first served basis.

If by any chance you have not received the folder or have not made your reservation, we suggest you write, wire or phone PRINTING EQUIPMENT *Engineer*, CHerry 6645, 1276 W. Third St., Cleveland 13, O., at once. Advance reservations indicate that all booths will be sold in the very near future.

Respect Thoroness

Abstracted from address delivered before convention of National Association of Photo-Lithographers, Hotel Statler, New York, N. Y., October 1949, by Frank A. Myers, Treasurer, Copifyer Lithograph Corp., Cleveland.

THE supervisor who makes snap judgements is always in trouble. The men in his department don't get enthusiastic about his new ideas. Too many times in the past they proved to be poorly thought out. Employees respect a foreman who is thorough. They like to know that he makes a decision only after getting all the information and considering all the angles and details. A good doctor doesn't give you one look and then say, "I know just what is wrong". He gives you a thorough check-over before he writes his prescription.

Still Experimental

In the January issue of *Printing Equipment Engineer* appeared a report of the Graphic Arts Research and Engineering Council, held in Rochester, N. Y., December 8 and 9. One of the features of the meeting was a visit to the laboratories of Eastman Kodak Co. In a meeting in the auditorium before the trip through the laboratories, visitors were addressed by Dr. C. E. Kenneth Mees. Dr. Mees is vice president and research head of Eastman. Dr. Mees mentioned two new developments. One of these is an experimental Eastman method for lithographic printing directly from the film exposed in the camera. The other experimental development consists of making a printing plate from cellulose acetate in a few minutes. It is expected that announcement of both developments will occur in due time.

ATF Branches Expand

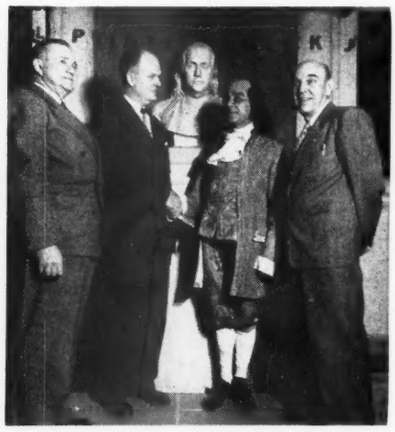
American Type Founders Sales Corp.'s Buffalo, N. Y. branch has moved to a new location, according to an announcement by E. B. Hundley, Branch Manager. The new building at 350 Masten St. provides increased space for sales, service, display and warehousing facilities. ATF's Boston branch headquarters at 210 South St. has also kept pace by modernizing and decorating office and stock room facilities.

To Install G-E Equipment

Motors and controls for a new 10 unit rotogravure press being acquired by Cia. General Fabril Financiera of Buenos Aires, Argentina, will be furnished by the General Electric Co., it was announced recently. The press will be driven by one 60 h.p. and three 50 h.p. G-E d.c. motors whose armatures are to be coaxially mounted as part of the press shaft. Each motor will receive its power supply from an individual G-E Thymo-trol panel. In addition, G. E. will supply automatic photoelectric color register control equipment for installation on eight of the press units.

Monotype School Bulletin

A four page bulletin descriptive of courses offered by the Monotype School has been issued by Lanston Monotype Machine Co. The school offers thorough courses of study on the Keyboard and Composition Caster, as well as refresher courses on these and other Monotype machines, to printer-employees of Monotype owners from the United States, Canada and Latin America. The school is held in the factory in Philadelphia and is directed by accredited instructors. The Keyboard and the Caster course may be completed in five weeks and a combination of the two in nine weeks.



Franklin Visits GPO—Introduced by Deputy Public Printer Philip L. Cole, Benjamin Franklin addressed a gathering at the Franklin Shrine in the Government Printing Office, Washington, D. C., on January 17. The occasion was a part of the joint observance of Franklin's birthday and of International Printing Week. Shown above are Charles E. Summers, Chairman of the Observance Committee of the Graphic Arts Assoc.; Deputy Public Printer Cole; Ben Franklin, in the person of Eustis E. Morsberger; and Morris H. Reaves, President, Washington (D. C.) Club of Printing House Craftsmen.

Every Issue of

PRINTING EQUIPMENT *Engineer*

IS IMPORTANT

Every issue of PRINTING EQUIPMENT *Engineer* in the year 1950 will be important to mechanical and production executives who recommend or purchase printing equipment. That's because many issues will contain editorial articles on equipment and supplies that will be displayed at the ANPA Mechanical Conference and the 6th Educational Graphic Arts Exposition, plus advertisements giving buyers the latest information on equipment and supplies.

These Three Issues Will Be Doubly Important

The three outstanding big issues of PRINTING EQUIPMENT *Engineer* in 1950 will be the ANPA Mechanical Conference Issue with its distribution of de luxe copies at Buffalo, June 12, 13 and 14; the Graphic Arts Exposition Issue with its distribution of 1,500 de luxe copies at the Graphic Arts Exposition in Chicago, September 11 through 22nd. And finally, PRINTING EQUIPMENT *Engineer* will wind up the year with the 17th Annual "Where to Buy" Printing Equipment and Supplies Reference Issue summarizing the year's activities in equipment and supplies.

Advertisers Should Take Advantage Of This Big Equipment Year

Manufacturers of equipment and supplies for the printing field should double and re-double their publicity efforts in 1950. More than that, they should exhibit at the Exposition and at the ANPA Mechanical Conference if their equipment is sold to newspapers. Yes—exhibit and at the same time, publicize your products in PRINTING EQUIPMENT *Engineer*—the publication that reaches over 10,000 of the "top" equipment and supplies buyers of the industry. Write today for complete information.

PRINTING EQUIPMENT *Engineer*

1276 WEST THIRD ST. • CLEVELAND 13, OHIO

Dum-T-Hold

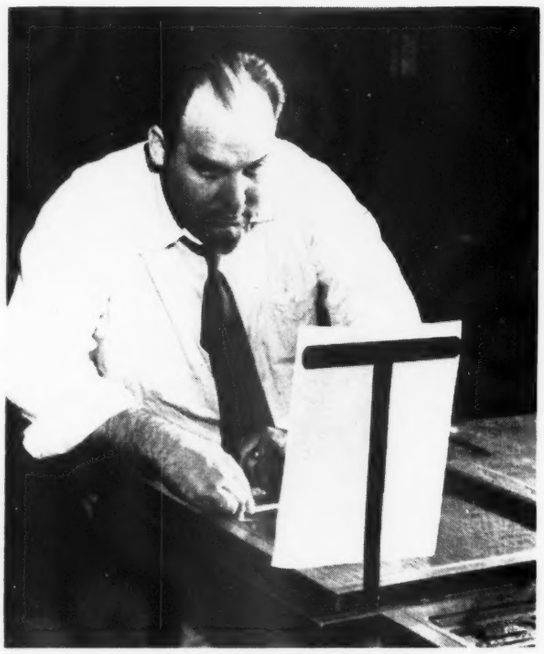
Useful device for newspaper makeup and ad alley men

DESIGNED especially for newspaper makeup and ad alley men, the Dum-T-Hold is useful for holding editorial dummies, page layouts and department store advertising proofs with an ungodly number of corrections in them in convenient position while work is being done on the page form. Its purpose is excellently shown in the accompanying illustration. The Dum-T-Hold recently made its appearance in a number of newspaper composing rooms on the Pacific coast.

The device was invented by a printer and a news room editor. F. W. Hilton, jr., tells *Printing Equipment Engineer* he will gladly supply the Dum-T-Hold in any quantity. We'll gladly pass your request to him.

The Dum-T-Hold is of simple construction. A horizontal toe at the lower part fits snugly under the chase, thus holding the device erect. The material is thin enough so as not to cause the chase to teeter but is rigid enough to withstand rigorous use given equipment in most newspaper composing rooms.

The device is 13 in. high; the cross arm is 8½ in. wide, and the toe (the part which slides under the chase) turns horizontally 1¾ in. The spikes on the cross arm which hold the dummy or proof are approx. 1 in. length. The material from which the Dum-T-Hold is made is formed for rigidity.



With editorial dummy before him, out of his way, the newspaper makeup man's work is facilitated. The Dum-T-Hold may also be used for holding advertising copy and department store proofs for correction.

Chemco Expansion

Chemco Photoproducts Co., Inc., has announced the expansion of its New York sales office. The branch now occupies the entire tenth floor of the Rittenberg Bldg., at 19th St. and Fourth Ave. According to Sam B. Anson, General Sales Manager, the new offices will serve as an improved sales center for the firm. Plans are being carried out to set up a display room on the premises. The office is under the management of C. Harold Larsson.

Printing Institute Display

An experiment in displaying Graphic Arts supplies and equipment was undertaken in Philadelphia in January by the Printing Institute. Samuel M. Burt, director of the school, has announced plans for a permanent exhibit, which will occupy 2000 sq. ft. of space on the ground floor of the school building at 2206 Chestnut St.

The exhibit will be a clearing house where printers' suppliers and equipment manufacturers display their lines and where printers can see the products or equipment covering the field in which they are interested, at their leisure and without any pressure of sales influence.

Display space is available on a yearly rental basis. It is offered to established manufacturers and suppliers who will furnish and install their displays.

Explains Operations

So that its readers would have an inside picture of the operations of a newspaper, the Bridgeport (Conn.) *Post* recently published a series of seven illustrated articles describing in detail its pressroom, circulation, and other departmental facilities. In the first of these articles, the *Post* tells of the problems involved in getting the newspaper on 500 newsstands in as many as 12 cities quickly. To accomplish this the *Post* has recently installed a Goss Headliner press which prints 48,000 newspapers an hour. Folding and conveyor attachments bring the finished papers into the mail room at an average rate of 800 newspapers per minute.

Centennial Celebration

New York Typographical Union No. 6, better known as "Big 6," will celebrate its 100th anniversary on May 5-15, 1950. The local union was organized in 1850, with Horace Greeley, publisher of the New York *Tribune*, as its first president. Heading the centennial committee is Charles Felten, Graphic Arts instructor and well known art director. Mr. Felten designed the centennial seal being used by the local to publicize the celebration. The seal is black upon a gold background and is used in various sizes.

Bryan-Brandenburg Co. has announced that William J. Brandenburg, president and one of the founders of the company in 1911, has been made Chairman of the Board of Directors. Perry R. Long, general manager and former vice president, has been elected president. Prior to his association with Bryan-Brandenburg in 1945, Mr. Long was affiliated with the *American Weekly* and The Curtis Publishing Co. Ralph S. Shepherd, assistant manager, has been elected vice president. Mr. Shepherd has been associated with the company since 1947. He formerly was with advertising agencies in New York and San Francisco.

Recent EBCO Installations

Announcement has been made by the Printing Machinery Div., Electric Boat Co., of the installation of an EBCO offset press at Litho Specialties, Inc., of St. Paul, Minn. In honor of the event an open house was held for more than 85 guests, including members of the Twin City Litho Club. Among those present were Charles Harwood, District Manager of the Printing Machinery Div., and William Mastenbrook, President of Litho Specialties.

Announcement was also made recently by Harold W. Gegenheimer, Manager of the Printing Machinery Div., of the delivery of EBCO 22 in. by 34 in. Single-Color Offset Presses to each of the following printing firms: Myers & Co., Inc., Topeka, Kan.; Style Printing Co., Newark, N. J.; Jeppesen & Co., Denver, Col.; York Litho Co., New York; Luciano Ortiz, Laredo, Tex.; Hill Printing & Stationery Co., Waco, Tex.; Edwards Brothers, Inc., Ann Arbor, Mich.; and W. Schaub & Cia, Ltda., Chiguayante, Chile.

George Bourne, formerly associated with Harris-Seybold Co. for 30 years, died at his home in Dayton, O., on January 17. Born in Canterbury, England in 1884, Mr. Bourne began to learn the machinist's trade at the age of 12. While still a young man he came to America, and took a job with the old Oswego Machine Works. He joined the Seybold Company in Dayton in 1919, and remained until his retirement in July of 1949. He conducted the Seybold Service School, and had been its only instructor since the school was started.

Patents

For The GRAPHIC ARTS

Covering patents issued December 6, December 13, December 20 and December 27.

Binding, Cutting, Perforation

During the four weeks covered by this report, no patents have been issued for this heading.

Composing Room Equipment

2,490,568. LUBRICATING SPACEBANDS. A lubricant is automatically supplied to the casting points of spacers which are placed between each word in a line so as to prevent adhesion of type metal to such spacers. A lubricant is maintained in proper contact with the casting point irrespective of the position of the spacer sleeve. To this end, the construction claimed comprises, in a line-casting machine, a spacer box, a vertical front cover for the box and a row of spacers in inclined positions in the box. Each spacer comprises a spacer bar and a spacer sleeve, such sleeve having a surface exposed to molten type metal in the operation of the machine. Lubricant is supplied from a hollow carrier to the surface of the spacer sleeve which is located foremost in the row of spacers. The lubricant holder is swingably mounted so as to be screw-adjusted to cooperate with the lower end of the holder and so as to vary the angle of inclination of the holder and hence the lubricating supply. Invented by Einar Erik Alm, Stockholm, Sweden. Unassigned. Application August 17, 1945; in Sweden April 27, 1940. 4 claims.

2,490,680. ASSEMBLER SLIDE BAR STOP. A stop is provided for the assembler stop bar of a Linotype machine. It may be readily substituted for the conventional metallic stop without tapping or drilling of the machine and has the advantage of being silent in its operation. A framework is provided in which is adjustably mounted a rubber buffer. The buffer is adapted to protrude through one end of the frame in such a manner as to receive the impact of the assembler slide bar when the same is returned to its normal or starting position. The position of the buffer in the frame is adjustable by means of a screw threaded in one end of the frame. The screw has a head bearing against the inner end of the buffer. A lock nut is threaded to the outer side of the screw. When worn

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

*Read HOW AMAZED NEWSPAPER PUBLISHERS SAVE 40% TO 60% ON FUEL— GET 66% FASTER HEATING!

WHETHER your mechanical plant is small or large . . . no matter how many press runs you make a day . . . now you can slash melting costs to rock bottom! Many newspapers report amazing savings* of from 50% to 60% on fuel, heat-up in ⅓ the time with Kemp Immersion Pots! In addition Kemp assures even melting, constant temperatures.

PAYS FOR ITSELF

Even if your melting equipment is large enough for the job . . . when you replace with Kemp you're money ahead. No brickwork to steal heat . . . no external combustion chamber . . . no carbon monoxide . . . no temperature overrun. You get *high casting and melting rates*, reduced dross formation, speed of temperature recovery after adding cold pigs . . . PLUS a *guaranteed 40% saving on fuel alone!*

FOOLPROOF OPERATION

The famous Kemp Carburetor . . . part of each installation . . . assures complete combustion, reduces installation costs, makes *your* unit profitable. Get the facts. Find out how much you can save. Fill out the coupon and send for special bulletin. *names on request

KEMP OF BALTIMORE IMMERSION MELTING POTS

CARBURETORS
BURNERS
FIRE CHECKS
ATMOSPHERE & INERT GAS GENERATORS
ADSORPTIVE DRYERS
METAL MELTING UNITS
SINGEING EQUIPMENT
SPECIAL EQUIPMENT

THE C. M. KEMP MFG. CO., Dept. L-1,
405 E. Oliver St., Baltimore 2, Md.

Gentlemen: Send me Information Bulletin IE-10.

Name .....
Company .....
Address .....
City ..... Zone ..... State .....

$50.00
PRICE REDUCTION
New Model
Pre-Shrink and Flat Scorcher

New Machinery and Improved Production Methods have reduced production cost of the New Model Pre-Shrink and Flat Scorcher, and this saving is being passed on to you.

Can be purchased without timer—with one timer—with two timers; one for scorching and one for pre-shrink. Machine has pre-shrink attachment; automatic heat control; welded steel body—hinged instrument panel.

NEW PRICES

Model "FC" without timer	**AC**	**$200.00**
Model "FS" with one timer	**AC**	**225.00**
Model "FSP" with two timers	**AC**	**250.00**

DC Models—$25.00 extra

AMERICAN PUBLISHERS SUPPLY, INC.

P. O. BOX 421 **LYNNFIELD, MASS.**

away the buffer may be adjustably forced outwardly of the frame. Invented by Warren H. Detwiler, Pequea, Pa. Assigned to Emil Bendow, South Hackensack, N. J. Application August 25, 1947. 1 claim.

2,491,367. PUSHER MECHANISM FOR MATRIX ASSEMBLERS. Invention relates to a composing or casting machine having a vertically movable elevator on which a line of matrices is assembled and discloses a supplementary pusher mechanism that will move the last matrix into position on the elevator slide rails, but which cannot interfere with the movement of the elevator in either direction. The mechanism is operated in timed sequence with the elevator movement but independently thereof. Invented by Byrd S. Fine, Waterbury, Conn. Unassigned. Application February 10, 1948. 3 claims.

2,492,289. METHOD OF MAKING PRINTING CHASES. Advertising copy, which must be set up in type from layout drawings with side margins at an angle to the line of printing, may be set with this chase without guess work. The chase is made by feeding a rectangular flat block horizontally to a vertical saw with the side edges of the block being inclined to the saw to cut from opposite sides along diagonal lines. Side pieces for the chase have a side oblique to the ends of same. One side piece is imposed on the other so as to form an abutment on one top side and an inclined ledge on the other piece. One end of center piece is arranged on the ledge with end abutting the abutment and the other the ledge. Side pieces and center piece are then fed to the saw to form the finishing cuts on the chase. Invented by Leo Hoppe, Chicago, Ill. Unassigned. Application November 6, 1947. 1 claim.

Feeding, Folding, Delivery

During the four weeks covered by this report, no patents have been issued for this heading.

Miscellaneous

2,490,685. A POWER-DRIVEN MACHINE is provided in which a heavy web roll is accurately secured on supports. Roll may be hoisted to a predetermined elevation. The hoisting and supporting apparatus, together with the web roll, may be bodily moved by manually operated means into selected positions to be unwound and fed to a processing machine. Invented by Robert H. Greene, Marion, Indiana. Unassigned. Application November 8, 1946. 6 claims.

2,492,338. VISE OR CLAMP SEQUENTIALLY ACTUATED BY SCREW AND HYDRAULIC RAM. The vise or clamp has a quick-acting preliminary adjustment with a relatively slower adjustment of greater mechanical advantage being automatically brought into play to produce a gripping pressure greater than that afforded by the preliminary adjustment. The usual screw thread adjustment of the movable jaw is automatically supplemented by a hydraulic or fluid adjustment so as to provide a grip of extreme force upon the workpiece. Features of the invention are applicable to bench vises, to shaper and milling machine vises, etc., and the hydraulic feature may be installed in letter presses. Invented by Carroll B. Vickers, Snyder, N. Y. Unassigned. Application June 5, 1946. 12 claims.

Plate Making

2,491,027. APPARATUS FOR PREPARING FLEXIBLE PRINTING PLATES for use on rotary presses of the type used for printing brand or other data on Bemis bags has been developed. The apparatus includes a layout having its surface perforated with holes of a given diameter and all holes are uniformly spaced apart in right-angular relation. A matrix having a pair of spaced apertures is adapted to register with predetermined holes in the layout. Anchor pins are fitted into the aligned apertures of the matrix and the layout to secure the matrix in proper position on the layout. A printing plate backing sheet is supported over the matrix. It has spaced apertures which are adapted to register with predetermined holes in the layout for receiving the anchor pins to guide the printing plate backing sheet into accurate registry with the matrix. Invented by Daniel Belcher and Stanley C. Freeman, Minneapolis, Minn. Assigned to Bemis Brothers Bag Co., Minneapolis, Minn. Original application October 17, 1941; divided

HERE'S WHERE YOU CAN SAVE

time and equipment costs . . .

CHALLENGE expandable HI-SPEED FURNITURE

Now — a single piece of furniture does extra duty — serves as several different sizes. That's how Challenge Hi-Speed Furniture works. You can E-X-P-A-N-D it 2 ems at a time from 30 ems up to a maximum of 50 ems or from 20 up to 30 ems, depending on the closed size of the piece.

Challenge Hi-Speed Furniture is strong and accurate. It holds firmly when expanded — will not give or yield under any normal pressure. Made in nine sizes: 10x20—30 ems, 15x20—30 ems, 20x20—30 ems, 25x20—30 ems, 30x20—30 ems, 15x30—50 ems, 20x30—50 ems, 25x30—50 ems, 30x30—50 ems. Ask about this new furniture today. 641

DEALERS IN ALL PRINCIPAL CITIES

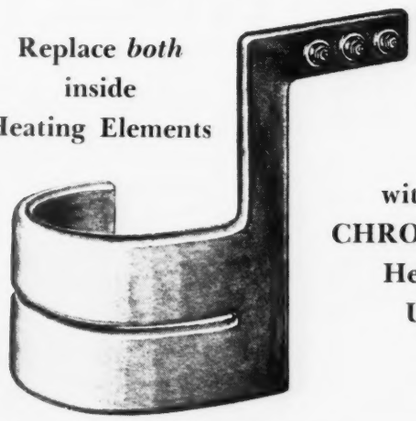
THE CHALLENGE MACHINERY CO.

"Over Fifty Years in the Service of the Graphic Arts"

MAIN OFFICE AND FACTORIES: GRAND HAVEN, MICH.

On Your Linotypes...

Replace *both* inside Heating Elements



with the CHROMALOX Heating Unit

• This *double* unit in *single* casing is more efficient and—in terms of service-hour cost—less expensive • Uses available wattage in smaller space. Thicker case is less susceptible to damage • Heats faster, lasts longer • Easier to install and to change • Gets away from "freezing" due to dross accumulation, so frequent where *two* elements are used. You know how, in such event, it is often impossible to remove *one* element without damaging the other—and how dross accumulation reduces heat radiation • The CHROMALOX Heating Element is a nickel chromium ribbon or spiral wire, embedded under hydraulic pressure in refractory material and enclosed in high temperature sheathing • It cannot shift or ground; is built to withstand overvoltage and consequent overwattage; is immune to vibration and abuse • When one chromium unit burns out, the other continues to deliver sufficient heat to insure metal fluidity while replacement is being made. • Can be used with either 110 or 220 volts. Write for folder.

Crucible before and after installation of CHROMALOX Unit Heating

Before removal of original units.

Note how dross building up between elements, acts as insulator, preventing full heating efficiency.

CHROMALOX Unit Installed

No possibility of dross accumulation here. Full heating efficiency constantly maintained.

ACE DRIVE BELTS Back to pre-war quality—and better. Guaranteed for a full year against stretching.

PRECISION TRADE ★ MARK

LINOTYPE PARTS COMPANY

INCORPORATED

Factory and Main Office

SOUTH HACKENSACK, N. J.

Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.

CHICAGO • MINNEAPOLIS • DENVER • NEW YORK • BOSTON

and this application June 22, 1945. 1 claim.

2,491,090. PRINTING PLATE. The thin flexible type of planographic plate is said not to buckle under the influence of lithographic dampening solutions. The plate comprises a fibrous web expansible by dampening and adapted for attachment to a rotatable printing drum, a lithographic surface on the web and a series of parallel linear mutilated areas characterized by distortion of the fiber structure underneath. The distortion prevents protrusion of adjacent areas above the plane of the plate surface. Invented by William Ward Davidson, Evanston, Illinois. Assigned to Davidson Manufacturing Corporation, Chicago, Illinois. Application March 1, 1946. 13 claims.

2,492,348. MATRIX DRIER AND SHRINKER. Apparatus is not intended as a substitute for the customary vacuum former and drier for forming matrices in preparation for their use as molds for the casting of stereotype plates for newspaper presses. Rather it is a pre-drier and shrinker, performing partial drying and increased shrinking of the matrix preliminary to final drying in the customary drier. In the pre-drier the matrix is not subjected to such a high degree of vacuum as in the subsequent drying. Infrared heating lamps are used. Operation of the device is automatically halted when a predetermined degree of shrinkage has occurred. Invented by Craig C. Baker, Los Angeles, Calif. Unassigned. Application April 15, 1946. 4 claims.

WOES of LENNY LINECASTER
HERE'S A PICTURE OF A "BIG SQUIRT" I TOOK LAST SUMMER
OLD FAITHFUL
SQUIRT
"BIG SQUIRT" REMINDED ME OF MY MACHINE —IT ALWAYS DOES THAT
YOU NEED A MONOMELT! IT FEEDS CLEAN, MOLTEN METAL AT JUST THE RIGHT TEMPERATURE— FEWER SQUIRTS!
THIS IS GREAT! HAVEN'T HAD A SQUIRT ALL DAY WITH MY MONOMELT!
LENNY SAYS:

I'm getting nearly twice the type set since I have a Monomelt on my machine. No more over-heated metal squirts to slow me down . . . no more metal pigging . . . no more worry about the metal level in the pot. My Monomelt takes kill-out slugs right from the forms and feeds clean, molten metal, thermostatically controlled, into the machine pot in just the amount that is used by each cast.

THE MONOMELT CO., Inc.

1611 POLK STREET N. E. MINNEAPOLIS 13, MINNESOTA

Printing Inks

During the four weeks covered by this report, no patents have been issued for this heading.

Printing Presses and Equipment

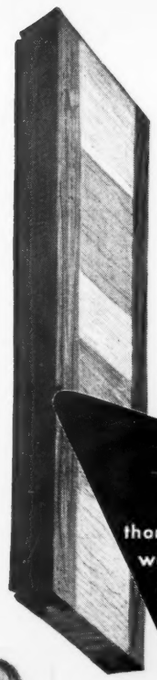
2,491,267. TYPE FRAME for box printing machines has a novel lock feature for securing the type-holding and spacer bars to the frame so as to prevent detachment during printing operations. The frame is capable of being loaded through gates disposed along the longitudinal sides of the frame. The frame, which is for rotary presses, has a plurality of separate type-holding and spacer bars locked by a single bolt element. Invented by Frederick B. Jorgensen, Piedmont, Calif. Unassigned. Application June 10, 1946. 8 claims.

2,491,819. SHEET DELIVERY MECHANISM FOR STOP-CYLINDER PRINTING MACHINES. Mechanism is arranged to lift the tail end of a printed sheet from the printing cylinder and to initiate the removal of the sheet by means of suction fingers or suckers. The removal of the sheet is completed by means of a conveyor having mechanical grippers which take over the sheet presented to them and released by the suction fingers. Invented by Wilfred G. Lawson and Frederick S. Jenkins, Chertsey, England. Assigned by mesne assignments, to Alfred H. Lakeman, London, England. Application July 5, 1945; in Great Britain August 3, 1944. 9 claims.

2,492,181. INK SEPARATOR FOR PRINTING APPARATUS. Patent discloses improvements in the construction and operation of devices for segregating adjoining impressions which are simultaneously applied to sheets being printed in the same press. Invention is designed primarily for presses of the Miehle type. The ink separating device comprises a pair of elongated parallel soft ink distribution rollers for applying colored ink to adjacent impression plates, a roll having a hard and smooth periphery drivingly engaging and removing the ink from the portions of the distribution rollers which coact with the area between adjacent impression plates, and a pair of blades for scraping the ink from the roll periphery. Invented by Raymond R. Richter, Milwaukee, Wis. Unassigned. Application July 5, 1946. 12 claims.

2,492,528. REGISTERING PRINTS FROM PRINTING ELEMENTS. The method is useful in connection with multicolor letterpress printing for newspapers and magazines. The invention provides a method and means for holding printing elements from which impressions are to be made in exact predetermined relation to the registering means, whereby a set of color printing plates can be accurately located and held in true, registered relation, so that correspondingly positioned registering indicia, such as central cross lines can be scribed on the surface or margins of each printing plate. Invented by William C. Huebner, New York, N. Y. Unassigned. Application September 27, 1944. 9 claims.

2,492,798. ROTATABLE MIRROR MEANS FOR REGISTERING FLAT-



HOW TO RESTORE WARPED WOOD-MOUNTED CUTS

"After thoroughly heating the wood-mount, quickly place it on a cold stone or press bed. Hold the warped edges down for a minute or two and the wood-mount will flatten out. If one heating is not enough, repeat the operation."

Mr. George Deeney, Pressroom Foreman of Recorder Printing and Publishing Company, San Francisco, California.

ONLY THE **BEST** IS GOOD ENOUGH ...SO DON'T JUST SAY "TYMPAN"— SAY "**CROMWELL** TYMPAN"!

Like outstanding printers everywhere, Record Printing and Publishing Company knows that Cromwell Special Prepared Tympan gives sharper, cleaner impressions. Its calipered uniformity, high tensile strength and absolute resistance to oil, moisture and atmospheric changes permits every sheet of Cromwell Tympan to bear Cromwell's UNCONDITIONAL GUARANTEE.

Send coupon today for free working sample of Cromwell Special Prepared Tympan

CROMWELL PAPER COMPANY
4801 So. Whipple Street, Chicago 32, Ill.

Cromwell Paper Company
4801 South Whipple Street
Chicago 32, Illinois

I'd like to try Cromwell Tympan. Please send me a sample sheet. No obligation, of course.

Name.....

Firm Name.....

Address.....

City..... Zone..... State.....

Press Make..... Sheet Size .....

(check)—Square cut ☐ Clipped, scored ☐

No Ghosts!

• Ghosting and bolstering are virtually troubles of the past when you use today's improved VULCAN Newspaper Press Blankets. Pressmen who print the world's leading newspapers are confirming this by their enthusiastic approval.

• VULCAN Blankets give you greater firmness, the proper degree of compressibility, superb uniformity of thickness. They give you longer press runs without changes in impression setting.

• There is a VULCAN press packing combination for every press and every pressroom need. Order VULCAN Press Blankets now.

"THE MARK OF QUALITY"

Vulcan PROOFING COMPANY

FIRST AVENUE & 58th STREET • BROOKLYN 20, NEW YORK

Pacific Coast Representative: THE CALIFORNIA INK COMPANY, INC.

Canadian Representative: SEARS LIMITED, TORONTO

BED COLOR PRINTING ELEMENTS WITH THEIR CORRESPONDING FIXED REGISTRY ELEMENTS. Mirror unit comprises a transparent mirror and a coacting nontransparent mirror at an angle to the first mirror. The mirror unit is located in a position to cause the nontransparent mirror to receive combined images of corresponding surfaces reflected from a fixed registry element by the transparent mirror and directly from a flat-bed color printing form through the transparent mirror. The combined images are reflected to the eye of an observer. Invented by Earle L. Harley, Brooklyn, N. Y. Unassigned. Application October 29, 1946. 3 claims.

2,492,818. APPARATUS HAVING RELATIVELY MOVABLE MEMBERS AND FASTENING MECHANISM THEREFOR. Fastening mechanism is provided for fastening a sheet delivery mechanism in cooperative position upon a printing press when required. It comprises a fastening member having an engaging or hook portion and an eccentric mounting for the engaging portion. Fastening member is urged against a fulcrum member while fastening member is being advanced and retracted. In this way the engaging portion of the fastening member partakes of transverse movement simultaneously with advance and retraction. Invented by August A. Saul, Ross Township, Allegheny County, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Original application April 3, 1941; divided and this application August 17, 1945. 6 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

Executive Ⓘs

(Continued from Page 44)

John T. Renshaw, Vice President in charge of the Mid Western Branch of the E. P. Lawson Co., has announced the appointment of Kenneth Mairson as

Kenneth Mairson, sales representative for E. P. Lawson Co., Chicago office.

sales representative in the Chicago area. Mr. Mairson was formerly associated with the Falco Corporation for seven years as western manager. He will work out of the Lawson offices located at 628 S. Dearborn St. in Chicago.

DeWitt G. Manley, appointed Manager of ATF Sales Corp.'s Detroit branch, according to an announcement by Robert G. Marquardt, Vice President in Charge of Sales. Mr. Manley has been with ATF for the past five years.

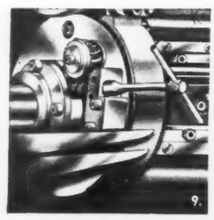
August J. Bruder, secretary of the Cincinnati (O.) Club of Printing House Craftsmen for the past 25 years, passed away on January 22, 1950. At the time of his death, Mr. Bruder was in charge of the private printing plant of the J. H. Day Co. Prior to that connection he taught at the Graphic Arts High School in Cincinnati and had been connected

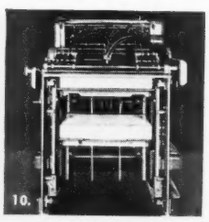
Exclusively! EBCO

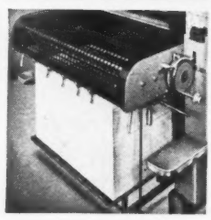
22" x 34" SINGLE COLOR OFFSET PRESS

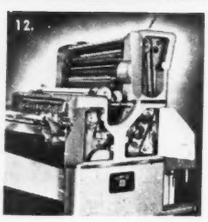
ONLY EBCO HAS THESE FEATURES!

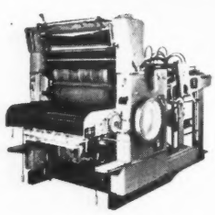
1. Patented Pull Side Guide
2. Larger, Sturdier Dampening Rollers
3. Cylinders Balanced and Running on Tapered Roller Bearings
4. Rapid Accurate Plate Cylinder Adjustment
5. Positive Register Detectors on Each Front Guide
6. New One-piece Feeding Cylinder
7. Full Sight Larger Diameter Inking Rollers
8. Inker Driven from Main Drive
9. Proper Blanket Tension Easily Applied
10. Positive Sheet-by-sheet Reloading Feeder
11. Extra Capacity Clear View Delivery
12. Streamlined for Safety and Ready Accessibility
13. Graduated Scales for Feeder Pile and Side Guide





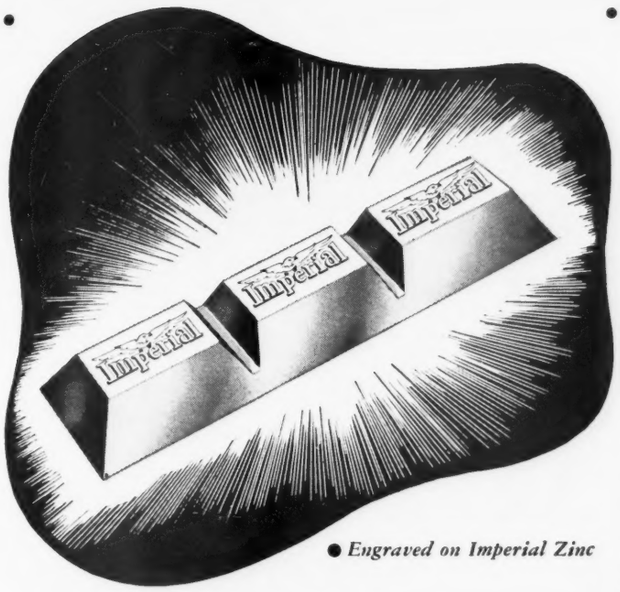






Write for illustrated folder on these and other EBCO features!

PRINTING MACHINERY DIVISION ELECTRIC BOAT COMPANY
445 PARK AVENUE, NEW YORK 22, NEW YORK
400 WEST MADISON STREET, CHICAGO 6, ILLINOIS
RUSS BUILDING, SAN FRANCISCO, CALIFORNIA



● *Engraved on Imperial Zinc*

WITH IMPERIAL YOU ARE *Sure!*

● In printing, variable factors are the cause of many difficulties. Imperial Type Metal *plus* Imperial Service eliminates, once and for all, one of the most costly, most troublesome of all of the variables in printing production.

With Imperial Metal *plus* Imperial Service you are always sure of metal uniformity. You develop no gray hairs over metal difficulties. You waste no time tinkering and adjusting. And you free yourself at once from the extra costs of imperfect casts, machine shutdowns and other production losses for which metal deterioration can be responsible.

The Imperial Type Metal Man is a specialist in metal problems. Without obligation he will study your work and recommend the particular Imperial Service that will prove most advantageous for you. At your request we'll gladly put you in touch with him.

Imperial

TYPE METAL COMPANY

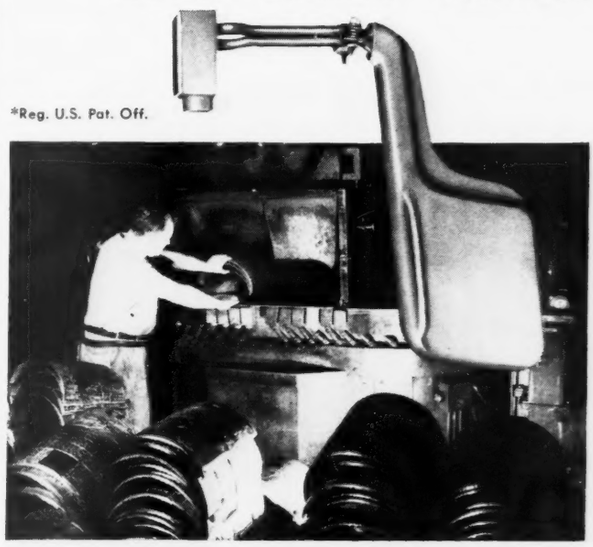
SERVING THE GRAPHIC ARTS *Exclusively*

PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50

Cast 'em clean Cast 'em quick!

melt stereotype metal the modern way with G-E CALROD* HEATERS

*Reg. U.S. Pat. Off.



Winner of the 1949 F. Wayland Ayer Award, the New York Times uses electric heat exclusively for melting stereotype metal.

Cast cleaner, sharper plates. Melt your stereotype metal by the fastest, most accurate method available . . . G-E Calrod, cast-in, immersion heaters!

Maintenance is lower. No servicing of the heaters is necessary. And some heaters have been in use as long as 25 years.

Working conditions are improved. Casting rooms are cleaner and cooler because the heaters are immersed right in the metal for maximum heat transfer with minimum heat losses.

Melt metal as fast as your automatics can cast it! No "cold-metal" stoppage when G-E Calrod cast-in heaters are on the job! Metal is melted faster than the maximum rate of casting and yet maintained at the *correct temperature for casting.*

Convert your stereotype furnaces over the week end. . . . with no interruption in production . . . G-E Calrod, cast-in heaters are *that* easy to install.

To order the heaters and control for your furnaces just contact the G-E Apparatus Sales Office nearest you. For more information,

SEND FOR NEW, FREE PUBLICATION, GEA-5453, "Melting Stereotype Metal with Electric Heaters."

Apparatus Dept., Sect. 720-21, General Electric Company, Schenectady 5, N. Y.

GENERAL ELECTRIC 720-21

with John Weber, Printer. Mr. Bruder was well known in Craftsmen circles due to his long association with the Cincinnati Club. He regularly attended the Fifth District Craftsmen Conferences and many of the International Conventions. He leaves a widow, two married daughters and three grandchildren.

Walter H. Newey, former sales representative for Harris-Seybold Co., died at his home in West Medford, Mass., on December 17, 1949. Mr. Newey, who retired in 1947, was one of the men who helped to introduce the rotary offset press to the Graphic Arts industry. He joined the Harris Automatic Press Co. in 1906. At the time of his retirement, Mr. Newey was located at the Boston branch office. Former business associates attending Mr. Newey's funeral in Mass. included H. A. Porter, R. R. Perry, J. C. Dabney, H. P. L. Peterson and R. T. Snyder.

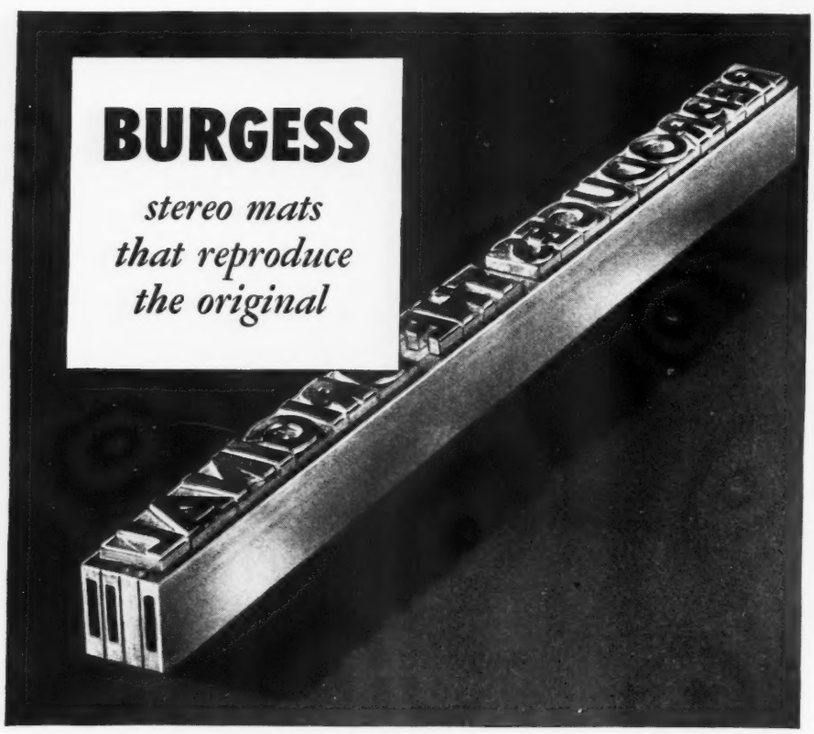
W. A. Rike has been named General Manager of the Lake Shore Electrotype Co., according to an announcement by Frank E. Reilly, President of the firm. Mr. Rike was formerly associated with the Marathon Corporation as manager of the Graphic Arts service departments. In his new position at Lake Shore, he will have supervision over all departments, including electrotyping, engraving and stereotyping.

Friends, fraternal and business associates, industrialists and factory workers filled the auditorium of the Methodist Peace Temple, Benton Harbor, Mich., on January 10 for the funeral of the Late Homer F. Rosback, president and general manager of the F. P. Rosback Co. Mr. Rosback died on January 7 from injuries sustained in an automobile accident on January 1. Born March 1, 1900 in Chicago, he was brought to Benton Harbor with his parents, the late Mr. and Mrs. Fred P. Rosback, jr., in 1905 when the Rosback company located in that city. He had headed the company bearing the family name since the death of his father.

Henry Messina became vice president of Danner Press, Inc., Akron, O., during the late fall of 1949. Before that time he was a sales representative for Wood Flong Corp.

Albert J. Graf of Marquette, Mich., has been named General Plant Manager of the Westerly, R. I. plant of C. B. Cottrell & Sons Co., according to an announcement by Donald C. Cottrell, President. Mr. Graf was formerly associated with the Lake Shore Engineering Co. as vice president in charge of manufacturing. He had previously been general works manager of both the Dunnellen, N. J., and New York, N. Y. plants of R. Hoe & Co. and the Goss Printing Press Co.

Albert J. Graf, named General Plant Manager of Westerly, R. I. plant of C. B. Cottrell & Sons Co.



Take a slug as it comes from the casting machine. Stereotype it using a Burgess mat. Then compare the casting with the original slug. Every detail is there... clean, sharp and bright.

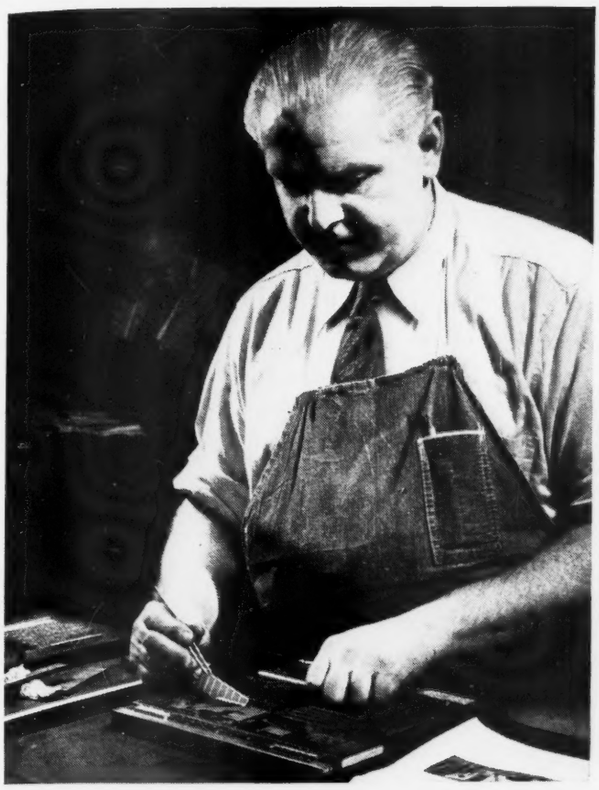
That's reproduction that rivals the original. It is the result of laboratory controls in the manufacture of Burgess mats... controls that guarantee uniform moisture content, greater plasticity, a smoother surface and uniform shrinkage. Why not put Burgess mats to work in your shop today?

BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

FREEPORT, ILLINOIS

A Laboratory Product BURGESS Chrome MATS



"To me as a make-up man, Blatchford's the buy because

. . . it makes clean, solid slugs that are easy to handle: to trim, line up, and lock up."

Every make-up man wants material that fits without fussing. And in type, slugs, and strip of Blatchford, he can be *sure* he gets it. Why?

First, because the lead, tin, and antimony are tops in quality. Unlimited metal resources plus close laboratory control account for that.

Second, because Blatchford formulations assure the characteristics and behavior you expect. Nothing is left to chance.

Third, because alloying and molding are under constant control. Every batch of Blatchford reflects know-how gained by nearly a century of metal-mixing experience.

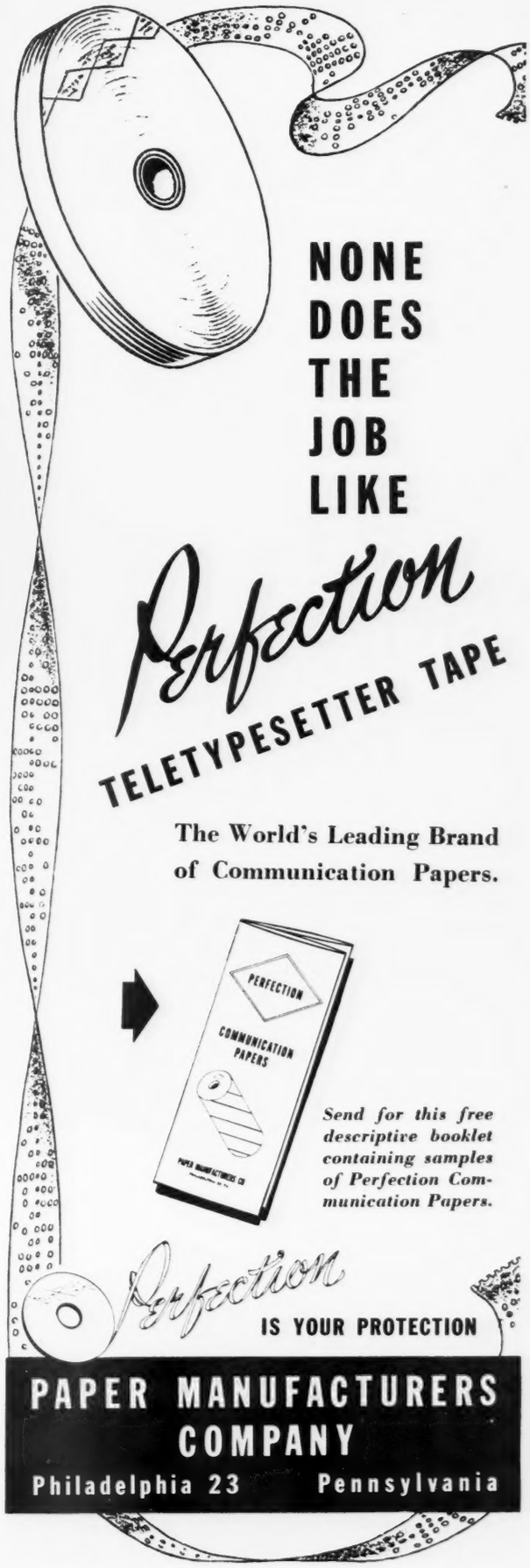
That's why make-up men, operators, and pressmen tell you, "when it comes to metal, Blatchford's the buy." Try it.

* *

Keep your metal stock always up to par—use the famous ***Blatchford Metal Maintenance Service.*** Write for details.

NATIONAL LEAD COMPANY. *Baltimore, Chicago, Cincinnati, Cleveland, Pittsburgh, St. Louis; National Lead Co. of Mass., Boston; E. W. Blatchford Co., New York; Morris P. Kirk & Son, Inc., Los Angeles; American Lead Corp., Indianapolis; Georgia Lead Works (div. of Cincinnati Branch), Atlanta.*

Blatchford . . .
the NATIONAL name for dependable metal



NONE DOES THE JOB LIKE

Perfection

TELETYPESETTER TAPE

The World's Leading Brand of Communication Papers.

Send for this free descriptive booklet containing samples of Perfection Communication Papers.

Perfection **IS YOUR PROTECTION**

PAPER MANUFACTURERS COMPANY
Philadelphia 23 Pennsylvania

Great Lakes Meet

(Continued from Page 58)

at 6 p.m. as the deadline for acceptance of advertising copy. Proofs must be ready in the dispatch room by 8 a.m. on Friday, with the deadline for corrections falling on 6 p.m. of the same day. The deadline for acceptance of copy without proofs and without corrections is Thursday at 6 p.m.

Composing Room Viewpoint

Deo Padgett, Composing Room Superintendent of the Cleveland *Plain Dealer*, delivered an address on *Deadlines from the Composing Room Viewpoint*. Declaring that deadlines apply only to the mechanical departments of a newspaper, Mr. Padgett stated that if these departments do not meet these deadlines the newspaper will not be delivered on time to make connections with trains and other methods of delivery. If it is not delivered the ads are of no value and the news matter is also so much labor lost.

If the composing room foreman could plan his work knowing that deadlines were going to be observed and that those deadlines were reasonable, he could make a reduction in operating cost. The amount of reduction would depend upon the volume of advertising, the size of the newspaper and the time of editions. It should not be necessary for foremen to argue with top executives in order to convince them that late copy makes for extra cost.

Late copy from the advertising department makes for errors. It causes bunching of pages to the stereotype department and this automatically interferes with good printing. It also makes your help just a little more difficult to get along with. It was the opinion of the speaker that this was the result of bad planning by the advertiser and as a result he is not getting as much for his advertising dollar.

If some way could be devised, he stated, to put the extra costs that accrue because of late copy upon the department responsible for the late copy, rather than the department that has to produce it at extra cost, then there would be interest in getting copy in on time, less late copy, and fewer errors.

Management Viewpoint

Production Operation from Management's Viewpoint was the subject of the concluding speaker on the program, C. G. Linham, Business Manager for the Portsmouth (O.) *Times*. He called upon mechanical and production executives to recognize the problems confronting the advertising department of the newspaper. In citing several examples of these, he said it was frequently the fault of the customer in preparing such poor copy. In many instances, the advertising salesman must re-write his customer's copy after receiving it. There must be a common understanding of the problems at hand among the mechanical departments, the advertising department, and the customer before a solution will be reached which will solve the matter of establishing and meeting deadlines.

Management, said Mr. Linham, should find out if the production departments have enough equipment to do the job as quickly and efficiently as possible. Production problems on newspapers are similar regardless of the size of the paper.

Our Hundredth Anniversary

EDES ENGRAVING METALS

1850-1950

A CENTURY OF EXPERIENCE with METALS

One hundred years of service under the continuous ownership of the Edes family have been completed by the Edes Manufacturing Company. Entering our second century, we shall continue our tradition of producing — today as yesterday — *the most uniform and dependable* Photo-Engraving Metals in the world.

THE EDES MANUFACTURING COMPANY
Plymouth, Mass.

EDES ENGRAVING METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

Represented by: R. P. BICKFORD, Room 2118, 420 Lexington Ave., New York 17, N. Y. * GEORGE R. KELLER, 210 G St., N. W. Washington, D. C. * W. OLIVER TRIPP COMPANY, 222 Columbus Ave., Boston, Mass. * C. G. DOM SUPPLY COMPANY, 125 East Pearl St., Cincinnati, Ohio * MID-WEST PHOTO ENGRAVERS SUPPLY COMPANY, 520 Clark Ave., St. Louis, Missouri * E. H. WALKER SUPPLY COMPANY, 140 Que St., N. E. Washington, D. C. * 614 East Main St., Richmond, Va. * TEANECK CHEMICAL COMPANY, INC., Teaneck, N. J. * C. G. AMENTA, 5842 North Leonard Ave., Chicago 30, Ill. * ALLAN B. CROKE COMPANY, 451 Atlantic Ave., Boston, Mass. * C. S. ILLINGWORTH, 47 Dakota Ave., Buffalo, N. Y. * J. W. FEINSTEIN, Distributor, 883 Mission St., San Francisco, Cal. * THOMPSON-HAYWARD CHEMICAL COMPANY, 29th & Southwest Blvd., Kansas City, Missouri * G. H. WILEY COMPANY, 507 East Third St., Dayton, Ohio * MARVIS DIST. COMPANY, 144 Walker St., S. W. Atlanta 3, Ga. * SCIENTIFIC SUPPLY COMPANY of TEXAS, 1116 Hemphill St., Houston 13, Texas.

Machinists' Session

AFTER adjournment of the Composing Room session, the Machinists' Session got under way, under the joint chairmanship of John Peecook, Chief Machinist, Cleveland *News* and I. J. Chalifoux, Chief Machinist, Cleveland *Plain Dealer*. The first speaker H. A. Priddle of Intertype delivered an address entitled *Mechanical Features and Improvements on the Intertype*. His discussion was illustrated with slides. Among the many detail improvements incorporated in Intertype machines are mixer distributor mechanisms, delivery slide air cylinder valve has been placed near the top of the cylinder periphery so adjustment of the valve can be made with an ordinary screwdriver, mold banking for ejection, first elevator lever link which functions

DISTINGUISHED RENDERING
of Routine Material

It is hard for the best advertising writer to win celebrity by price-listing of routine items in a year-end clearance sale or remnant sale . . . But the mechanical departments of the paper can do a great service to the paper and its price-minded readers by rendering a routine ad with outstanding clarity . . . Certified Mats have a name for helping plain type to talk plainly and invitingly.

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WHY ARE *MORE AND MORE* NEWSPAPER PRODUCTION SUPPLIES ORDERED FROM *EASTERN?*

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Try EASTERN yourself. You, too, will find here all the dependability and economy you're looking for. Write today for our new catalog!

- **TRU-MOLD CORK MOLDING BLANKET**
- **PLATE-TAK—THE SUPER-THIN CUT MOUNTING TAPE**
- **FLECTO GUMMED BACKING FELT**
  (Individually packed 5 sheets each)

EASTERN ROUTER BELTS IN ALL SIZES
EASTERN CIRCULAR SAWS
CURVED AND FLAT CASTING BOARD
ROYLE ROUTING CUTTERS
MATRIX SCORCHER—MATRIX TRIMMING KNIVES
DIRECT PRESSURE MOLDING MATERIALS

. . . and many other items for your composing rooms, pressrooms, stereotype and engraving departments!

EASTERN FOR ECONOMY
EASTERN NEWSPAPER SUPPLY, INC.
9603 Northern Boulevard, Corona, L. I., New York

with compression on all first elevator alignment positions during the casting operation, metal pot mouthpiece, and a number of others.

John Hilpman, Engineering Dept., Mergenthaler Linotype Co., exhibited 21 slides which were used to illustrate improvements made recently in Linotype mechanism. Among the improvements are: New construction of distributor clutch friction spring adjustment by means of an externally accessible knurled knob; two-speed assembler adjustment for display machines by means of which the star wheel tension may be adjusted quickly from the front of the star wheel shaft; a cam-operated assembling elevator gate by means of which the gate moves inwardly when the elevator rises thus pressing the upper section of the matrices against a detaining rail on the back plate, holding the matrices firmly in vertical position; improved mechanisms for closer control of metal pot and pot mouthpiece temperatures; in the self-quadder, a gripping device has been developed—the teeth on the control rod have been redesigned to assure positive engagement with the teeth of the extra-pressure operating mechanism, and the new unit is actuated by the forward motion of the pot, the gripping mechanism operating only when the machine is set for quadding or centering; a new pot pump lever support holds the pot pump cam roll off the pot pump cam except during the casting operation, thus wear on the pot pump cam is eliminated.

Mold Cooling

A discussion period followed. William Easton, Machinist, Milwaukee *Journal*, discussed the cooling of molds, particularly on Teletypesetter-operated machines. He spoke of the Monotype air compressor system, whereby air is delivered at from 12 lbs. to 14 lbs. pressure. If some way could be devised to apply this equipment to line-casting machines, it could be made to do an efficient job. Walter Severin of Intertype and John Hilpman of Mergenthaler, as well as a number of others, agreed that compressed air in the plant could be made to do a good cooling job if some way could be found to eliminate moisture and oil from the lines for mold-cooling purposes. Everett Miller of Linotype Parts Co., said undoubtedly the best cooling effect is obtained when the mold orifice is empty. On display slugs, particularly, he asserted that the operator should pause between casting of slugs to let the molds cool in order to avoid bleeding feet. One of the problems in any mold-cooling system is to prevent the air stream passing beyond the mold blocking where it will affect the pot mouthpiece temperature. Apparently, no solution satisfactory to all of the machinists was arrived at.

Some one asked about the experience so far with MLCo.'s Linolized molds in actual plant operation. John Hilpman explained that one instance of unsatisfactory operation had been called to his attention. In this case, the ejector blade rounded off the constant edge of the mold and caused bad delivery. In answer to a question from the floor, Mr. Hilpman stated the thickness of the Linolizing is approx. 1½ of 1/10 of 1 thousandth of an inch. He also explained that all Linolized molds and spacebands are now furnished with a lapped finish. There are no grinding wheel marks on the surfaces.

Linolized Spacebands

Joseph J. Cory, Chief Composing Room Machinist, St. Paul (Minn.) *Pioneer Press* and *Dispatch*, and also President of the Northwest Mechanical Conference, stated he doesn't think there is too much advantage in time-saving with respect to the use of Linolized spacebands. He made this statement with reference to the method for cleaning spacebands in his plant and because "you have to graphite the spacebands anyway." He described the method in use in his plant for hand-polishing spacebands. For this purpose, a board 18 in. by 24 in. is used. Each machine is supplied with 25 spacebands. When the machinist cleans the bands he lays down 10 spacebands in two groups of five spacebands each and rubs them on the board with both hands. Thus he polishes two groups of 10 and then has five spacebands remaining. If one spaceband is missing, it is automatically evident without making a separate operation of counting them. After some discussion, it appeared to be the consensus of opinion

that Linolized spacebands do perform better in the plant and help considerably in the cleaning and polishing operation.

Duex Cleaner

Some discussion occurred about the Duex spaceband cleaner. John Peecook, Cleveland *News*, stated the attachment cannot be applied to the spaceband box on new machines equipped with the oscillating front. Fred Hawver, Cleveland *Press*, reported that as reported by Mr. Cory, more time is saved on some machines than on others. Metal does not accumulate on the sleeves, but he notices a stain on the sleeves at the casting point. In his 30-machine plant, 5 sets of spacebands are cleaned daily, thus going through the plant once a week of 6-day operation; However if a set is skipped during this period, a matrix line with a lot of spacebands in it will not justify. Lubrication must be provided between the long wedge and the sleeve. He saves from six to seven hours per week in cleaning and polishing time.

Ted Gardiner, Indianapolis *News-Star*, reminded the machinists present that there are a number of obscure causes any one of which would create metal adhesions on spaceband sleeves. Among the better known are old matrices, bent matrices, poor justification, poor casting lockup and loose matrix lines.

Mold Banking

Considerable discussion occurred regarding the mold banking blocks during lockup of the mold disk at justification and ejection positions. One machinist maintained that because no provision has been made by the manufacturers for wear on the third hardened shoe in the mold cam, that if the lockup is correct for forward thrust of the mold disk during justification lockup the lockup during ejection position will not be sufficient. Mr. Easton said that he thought this condition had been corrected on machines manufactured since the year 1932.

In response to a question, Mr. Hilpman stated the MLCo. had provided a receding surface on the lower mold banking block to eliminate falling trimmings from the knives collecting on the block itself, and thus causing an abnormal mold banking surface.

THE "Acid Test" IS IN THE ETCHING

• *Engraved on Imperial Zinc*

• As every engraver knows, there is much more to a sheet of good engraving zinc than is ever apparent on visual inspection. The "acid test" of the fine, uniform grain of Imperial Zinc is in the etching . . . the way it takes powdering with only normal care to prevent shoulders and undercutting . . . the ease with which it stands up even under multiple bites when extra depth is called for.

Put Imperial Zinc to the "acid test" yourself. Order a case today. You'll agree there *is* a difference.

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IMPERIAL TYPE METAL COMPANY

SERVING THE GRAPHIC ARTS *Exclusively*

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Blanket Gauge Markings

AT THE Stereotype Session, Tuesday morning, January 17, two executives presided. These were Ed McCarthy, Stereotype Supt. of the Milwaukee *Sentinel* and George Fuller, Stereotype Supt. of the Cleveland *Press*.

Because of another engagement, Earl Weiskittel, Pressroom Supt. of the Youngstown (O.) *Vindicator*, was asked to report upon the request of the 1949 Great Lakes Conference that manufacturers mark or stamp the gauge thickness on press blankets. Mr. Weiskittel read a number of letters from manufacturers. Three indicated they were willing to go along with the idea of stamping gauge thickness upon each blanket. One manufacturer is opposed to the idea. Two manufacturers stated they would mark the gauge thickness if a request is made at the time of ordering blankets. In general, the main objection seemed to be that blanket manufacturers fear the difference in measurements which might be obtained when a number of pressroom executives measure the same blanket. In other words, Old Man Human Element enters into the measurement, because no two men will measure a blanket alike even though using the same micrometer or thickness gauge. One manufacturer stated his measurements are taken with a spring table micrometer at the factory and the reading obtained from this instrument is stamped on the blanket. To illustrate his contention about the impracticability of marking gauge thicknesses upon blankets, one of the manufacturers explained that he takes measurements at every 18 in. of area; measurements of 0.060 in. to 0.064 in. are acceptable and the blanket is stamped 0.062 in. plus or minus 0.002 in. In the hands of the pressman using an ordinary micrometer,

NEW!

Ball Bearing

TYPE

CUSHMAN MOTOR

FOR LINOTYPES AND INTERTYPES

• Equipped optionally with driving gear pulley of special two-part construction—for use on late serial Linotypes equipped with lowered magazine elevating mechanism ("Cannon") • Hub can be separated from gear and applied to driving shaft of machine in that order.

• *Available for Older Machines also*—with regular driving pulley gear.

• *Conventional Sleeve Bearing Cushman Motor* is still available and will be supplied where new Ball Bearing type is not specified.

• We'll be glad to send further information.

PRECISION TRADE ★ MARK

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BEVERIDGE *Says:*

"If You're Not Mat Satisfied, Call Us In"

If you're not satisfied with the results you are getting with the dry mats you are using at the present, call in a BEVERIDGE salesman. Talk over your problem. He can recommend a BEVERIDGE MAT that will solve your mat problems efficiently and economically. That's because we manufacture the most uniform, highest quality dry mats that it is possible to make. Of course, our recommendations will cost you nothing. Write today.

New Products Division

The Beveridge Paper Company

Indianapolis 4, Indiana

"REGAL"

by New England

This name for our new Monocork Blankets is fast becoming the "buy" word of pressmen who are discovering the advantages we have built into this material.

If you have not yet had an opportunity to see what "REGALS" can do for you, now is the time.

YOU BE THE JUDGE!

NEW ENGLAND

NEWSPAPER SUPPLY CO.

164 FREMONT STREET

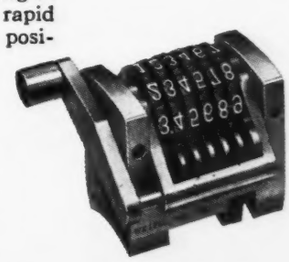
WORCESTER MASSACHUSETTS

BRANCHES: New York—Chicago—San Francisco—Tulsa

THANKS TO WETTER ENGINEERING SKILL

Wetter Numbering Machines are *more* than a match for today's high speed presses. Thanks to expert engineering, the Parallel Rotary Model (illustrated below) prints up to 25,000 impressions an hour — *smoothly* and *faultlessly!* Curved base is an integral part of frame — permits rapid setting of machine to any position on the mounting ring. Easy-to-install skip wheels allow printing in sequence you want.

If you have a difficult numbering problem, why not take advantage of Wetter's specialized experience in this field. Further information upon request.



5950 NUMBER IT BETTER WITH A WETTER

WETTER NUMBERING MACHINE CO.

ATLANTIC AVENUE & LOGAN STREET • BROOKLYN 8, N. Y.

SOLD BY ALL DEALERS AND BRANCHES OF A. T. F., INC.

measurements of 0.058 in. to 0.060 in. are obtained. Measurements also vary in the middle of the blanket from the measurements taken along the edges. No action was taken by the conference.

Stereotype Session

CHAIRMAN McCarthy called upon Harry Wrasse, Stereotype Supt. of the Milwaukee *Journal*, to discuss color stereotyping in his plant. Wrasse stressed, first of all that cooperation of executives in all departments is involved in the production of successful stereotype color plates. Without this cooperation, good results cannot be obtained. Color stereotype plates on the *Journal* are produced both by hot and cold molding on direct pressure presses. A 75 line halftone screen is used. Highlights are etched from 0.0045 in. to 0.005 in. deep. The etching must be clean with no connecting bridges. Photoengraver's register marks are placed at all four corners of the plate to enable the stereotyper to move them where he wants them. For this purpose, the stereotyper drills a hole through all four plates at one time with a No. 52 twist drill. Small brads inserted in the base project through the plates with the points above the top surface. All cuts are mounted type high on metal bases.

Hot Molding

Mr. Wrasse explained that all full color pages are molded hot. In the press, the form is left under pressure for 12 min. Hot molding is done from Burgess plastic mats with 25% moisture. Hot molds are cast in the Junior Autoplate. All full color pages are hot-molded to eliminate mat shrinkage which would affect the color register. The combination used for hot molding, he explained, consists of a Nylon sheet,10 sheets of newsprint, two molleton blankets and eight sheets of gray coated. Sufficient impression is used short of breaking the bolsters in the mat. He asserted "there isn't any use in striking oil—you can't print the interstices below the printing surface of the plate."

Cold Molding

Details regarding cold molding methods were explained by Mr. Wrasse at the request of George Fuller, Stereotype Supt., the Cleveland *Press*. Color pages containing type matter are cold-molded. Shrinkage on the *Journal* is ¾ in. Molding is done with a stop watch so all color plates will shrink alike. Scorching is carefully timed to keep register. There are two complete scorching cycles in order to get all moisture out of the mat and to prevent shrinkage of the mat after the first plate is cast. All mats for color plates are laid on the form in the same direction according to the stamped marking on the back of the mat. All mats are handled alike with respect to handling and timing. This is important. Mr. Wrasse stated the pressman receives color plates in the pressroom all marked from No. 1 to No. 16. An interesting bit of information was passed along to stereotype executives by Mr. Wrasse. He stated *all* color stereotype molding is done two or three days ahead of time. On pages where the color plates will occupy only a part of the page area, the color likewise is molded in advance. On the day of publication, the black page containing type matter is sent to the stereotype department and is molded along with standard black pages on the day of publication. All cold-molded plates are cast on the Automatic Autoplate.

During his address, Mr. Wrasse exhibited slides showing molding technique and examples of color pages which have appeared in the *Journal*. Some of the slides were illustrative of the *Journal's* new plate nickeling department. He explained that a bath holds 10 plates at one time. Two stereotype plates to be nickeled are mounted vertically on a holder to form a complete circle. The surface of the plate receives the nickel but the nickel not deposited on the interior or

Production and Mechanical Executives are invited to submit to the editor informally in a letter devices which have helped production in their plants.

here's how Rouse REDUCES YOUR TIME COSTS

CUT A FULL GALLEY OF MIXED MEASURES SLUGS IN ONLY 35 SECONDS

Rouse BAND SAW

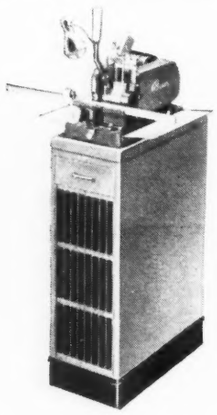
No more gauge setting! No more reclamping or measuring! That's why the Rouse Band Saw offers you by far the most economical way to accurately cut slug lines to different measures in the shortest possible time. No other machine nor method can even come close to this achievement.

If you operate one or more linecasting machines on variable measure composition, the Rouse Band Saw will do the work of hours in minutes. Expensive time saved will be unusually great in work requiring frequent changes in line measures, such as ad work, catalog runaround work, etc.

EXHIBITOR GRAPHIC ARTS EXPOSITION CHICAGO-SEPTEMBER 11-23-1950

CUT 1000-1200 ACCURATE MITERS IN ONLY 1 HOUR

Rouse POWER MITERER



If you need miters in either small or large quantities, no other machine nor method can turn out anywhere near as many perfect joining miters from strip material. That's how the Rouse Power Miterer can slash your time costs by doing work in minutes that now takes hours. It quickly pays for itself in expensive time saved.

From the smallest job shop up to the largest plant, only Rouse makes a Power Miterer for every type of use. Can be bought as a bench model or with any other equipment you wish.

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"INTAGLIO" STONES

GRINDING AND POLISHING STONES for rough grinding, semi-finishing and fine polishing of copper plated rotogravure printing cylinders, graining cylinders and the like.

Sole Selling Agent: STANDARD PROCESS CORPORATION
Manufacturer: THE CARBORUNDUM COMPANY

These "Intaglio" Stones were developed by collaboration between Standard Process and The Carborundum Company due to the introduction in 1930 of the Standard Process Grinding and Polishing Machine. The standard size of these stones is 7¾" dia. x 3" x 2" bore. The following stones are carried in stock for prompt delivery. The letter in front of the stone indicates the kind of stone; the number indicate the grit.

Cat. R100 (roughing stone.....100 grit)
Cat. R180 (roughing stone.....180 grit)
Cat. R280 (roughing stone.....280 grit)
Cat. S400 (semi-finishing.....400 grit)
Cat. S600 (semi-finishing.....600 grit)
Cat. S800 (semi-finishing.....800 grit)
In ordering stones, designate catalog number desired.

The stone for fine polishing is Cat. F1000. Due to its popularity the production of the F1000 has not kept up with its demand and therefore Cat. F1000 is not always readily available.
Stones are also obtainable for grinding and polishing steel cylinders; also for grinding doctor blades in Standard Process Doctor Blade Grinder, size of this stone being 5" x 1" x 4" bore.

STANDARD PROCESS CORPORATION
Manufacturing Gravure Equipment & Supplies
2704 W. Roscoe Street • Chicago 18, Ill.

Oldest in the Country-
WOOD DRY MATS
First in the Field!
Smooth Surface means Better Printing
The smooth finish of every Wood Dry Mat is the result of a carefully controlled manufacturing process. Run your hand over a Wood Mat . . . no rough spots to cause inferior reproduction. Notice the exceptional workmanship built into the Wood Mat. Test it. Samples will reveal the Wood Mat handles easier and prints better.
WOOD FLONG CORP.
HOOSICK FALLS, N. Y.
NEW YORK CITY OFFICE:
551 FIFTH AVE. • NEW YORK 17, N. Y.

TYPE METAL REMELTING FURNACES

(A) 'Surface' Type Metal Remelting Furnace equipped with Atmospheric Burner and hood. Available in capacities up to 2500 pounds of metal.

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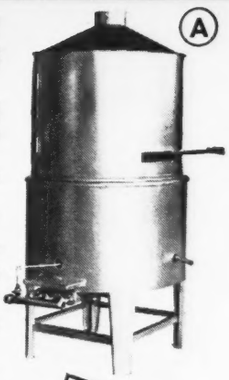
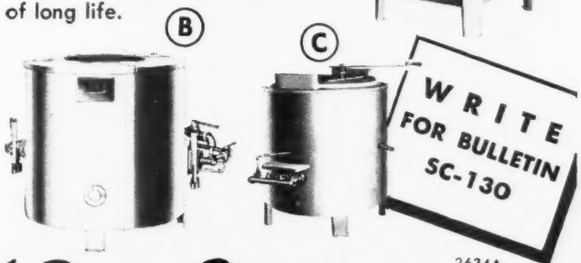
(C) Furnace equipped with atmospheric burner and bottom outlet.

(All types can be equipped with hood)

'Surface' Gas-Fired Furnaces for type metal remelting are designed to provide the industry with an efficient, rapid remelting furnace of long life.





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"Be Thrifty in '50"

BAUMFOLDERS

14x20 Five-fold Automatic Baumfolder
$85 initial and $1 a day for 30 months.

17½x22½ Six-fold Automatic Baumfolder
$150 initial and $1.40 a day for 30 months.

22x28 and 25x38 Automatic Baumfolders.

30x46 . . . 60 Automatic Baumfolder.

Proportionately painless in outgo, but boy, OH BOY . . . an **income** for a **life time** of **golden profit.**

If kept busy but two or three days a month it will pay for itself several times over, before you pay for it.

The next move is yours . . . write, wire or phone collect (from anywhere) . . . Lombard 3-8164-5-6.

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Appraisals • Surveys • Labor-Saving Recommendations
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Engineering • Plant Layout • Production • Management

Mechanical and production executives are invited to submit to the editor mechanical or production helps which have been devised in their plants. Our readers will be glad for the information.

back side of the plate. The complete plating cycle for 10 plates is 25 min., or 2½ min. per plate. The plating department has eliminated the former messy manipulation technique. He concluded his address by stating: "It isn't the thickness of the plating which is applied—it's how it is put on."

Direct Pressure Molding

The next topic: *Why Some Newspapers Have Discarded Direct Pressure Molding*, was handled diffidently, if not timidly. Apparently, no preparation respecting data on the subject had been made. Also apparently, the loss of molding depth in the halftone screens during mat processing occurs only in cases where high shrinkage mats (1 in. or more) are used. In one plant, high shrinkage mats together with direct pressure molding had been used for about one year whereupon the loss-of-depth in the mat during the drying process appeared. However, Harry Wrasse of the Milwaukee *Journal*, reported satisfaction. Harry Miller, Mechanical Supt. of the Dayton (O.) *Daily News*, reported the stereotype department molds from 350 to 400 pages per week and the solids print better. Ed McCarthy of the Milwaukee *Sentinel* discussed his direct pressure molding technique. He reported no loss of shrinkage but for a while he did have loss of depth in halftone screens.

During the discussion of direct pressure molding Stereotype Supt. George Fuller of the Cleveland *Press* mentioned the scientific treatise prepared by Dr. R. M. Schaffert of Battelle Memorial Institute. This was published in bulletin form by Research Director C. M. Flint of the ANPA. Manager Vernon Spitaleri of the ANPA Mechanical Dept. explained that the treatise was prepared by Dr. Schaffert as the result of research work conducted 10 years ago. Since that time, the stereotype process has been improved. However, the treatise is so valuable that it has been made the basis of investigational work now being conducted by the ANPA Research Laboratories in Easton, Pa.

Joseph D. Goggin, succeeding Mr. Spitaleri on the floor remarked: "By the time the next Great Lakes Conference meets and as the result of ANPA research, a lot of our phony ideas will have been dispensed with."

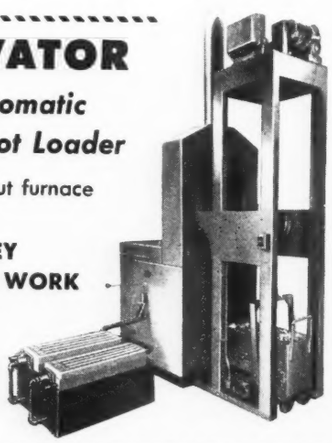
Pressroom Session

THE subject *Recent Pressroom Installations and Press Improvements* was assigned to a group of manufacturer representatives of companies making presses for the newspaper field. I. Tornberg, Vice President of Wood Newspaper Machinery Corp., was the first speaker of the group. His address concerned a description of the Wood Cosmopolitan Newspaper Printing Press. (See *Printing Equipment Engineer*, July and November 1949).

Wood Metropolitan

Mr. Tornberg listed some of the features embodied in this press which is designed especially for the medium-sized newspaper publishing field. The press uses semi-cylindrical plates. The paper is printed with columns around the cylinder. A standard folder is used. The press is capable of producing newspapers

The MELTEVATOR
. . . a New Automatic Melting Pot Loader
Supplied with or without furnace
SAVES TIME
SAVES MONEY
SAVES WORK
Write for Details
NOLAN Corporation
ROME, NEW YORK



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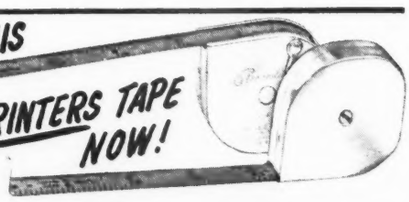

You're sure to say that this is the handiest, *most accurate* pocket measuring tape . . . *and just what you needed!* It's especially made for printers, with large, clear graduations in *both* picas and inches on *both* sides of the fine, carbon spring steel tape. Special measure stop lets you *hold* the reading for as long as you like. Tape is 6 ft. with handy, *extra* long tip.
SEND THIS AD AND $2.50 FOR YOUR STREAMLINE PRINTER'S TAPE TODAY! YOUR MONEY BACK IN 5 DAYS IF YOU'RE NOT SATISFIED!
MASTER RULE M'F'G. CO., INC.
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NEW BUILDINGS • MODERNIZATION
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ROBERT W. DICKERSON
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Write . . . for a copy of the new Vandercook *Illustrated Price List*
Shows Vandercook Proof Presses, Test Presses, Block Leveller, Plate, Type and Slug gauges —with descriptions, specifications and prices.
VANDERCOOK & SONS, INC.
900 North Kilpatrick Avenue • Chicago 51, Illinois
VANDERCOOK PRE-PRESS SYSTEM —CUTS COSTS!

Snap Judgements

Abstracted from address delivered before convention of National Association of Photo-Lithographers, Hotel Statler, New York, N. Y., October 1949, by Frank A. Myers, Treasurer, Copifyer Lithograph Corp., Cleveland.

MANY supervisors who get all the facts in dealing with machines, processes and materials will still make snap judgements about people. Most "unfair" foremen are the ones who make a decision in human relations without getting all the facts. You have to be thorough in all phases of handling grievances, hiring, disciplining or promoting.

in steps of two pages while running collect. Half or quarter-width paper rolls are used.

The press produces standard-size and tabloid size newspapers without change except introduction of a slitter. Ink fountains are readily removable for cleaning and changing color without undue waste. No pit is required for the motor-drive. The motor drive is an integral part of the press. In the press is incorporated a mechanism for introducing a two-page insert into collect products by means of properly controlled mechanisms without the use of tapes, cams, or similar devices and in proper register with the basic newspaper.

Goss Presses

William Goss of Goss Printing Press Co., the next scheduled speaker, introduced S. D. Wiley, Mechanical Superintendent of the New York *Daily News*, who spoke on the Goss Plate-Tension Lock-up presses used by that newspaper. He told of running on one press with the same blanket for 60 million impressions. On December 3, 1949, the speaker added, eight units of one of the presses printed 700 thousand newspapers. The actual press run took 10 hrs. and 20 min., which was an average speed of 34,800 papers per hr. The first edition of the *Daily News* for Brooklyn, N. Y., totals 40,000 every day which are printed in 50 min., he stated.

Scott Presses

Walter Scott & Co. was represented by Arthur H. Burns, former Mechanical Supt. of the New York *Herald Tribune*, who told of the various features incorporated in the Scott presses. The cutting cylinder circumference of the Scott folder, said he, is of two-page length instead of one and the folder is of a three-page circumferential length. The cutting cylinder carries two knife boxes and has

for Better Plates! Better Printing!

★ CENTRIFUGAL CASTING PROCESS for curved electrotypes

★ HYDRO-CASTER for flat electrotypes

These new methods of manufacturing electrotypes are available to you—for further information write

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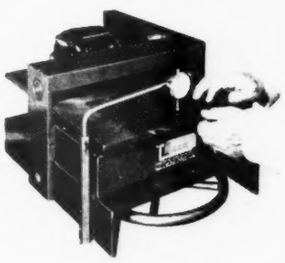

HACO PRECISION RUBBER PLATE GRINDER

not only to level plates that are uneven because of variance in type, cuts, and etc., but it will grind your plates to the thickness you desire.

Write today for free booklet

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adjusting plates which may be moved to accommodate a shorter page length on the second section of collect products. This cylinder is held in position in relation to the folding cylinder by means of two heavy springs so that excess paper may pass through if necessary.

Experimentation has been carried on by the Scott Company in the matter of web leads, especially with reference to the contact of the web with the driven rollers. The experiments have determined that the extent of this contact should be somewhat less than 90 deg. as productive of the best results.

Mr. Burns told the Conference members that Scott presses have been reduced in width by about 20 in. in overall dimension. This is not only a gain in space in the layout of pressrooms, but also produces a proportionately greater rigidity in impression and in the inking functions.

Hoe Presses

Commenting on recent developments in Hoe presses, Walter Cooper, Western Manager, R. Hoe & Co., emphasized the increasing use of color in newspaper printing. "The printing press manufacturers realize that a great deal depends on the recommendations you mechanical men make to your publishers with respect to color. You have the problem of purchasing color equipment which will help your advertising department to obtain additional business which is revenue. You are confronted on the other hand with the problem of the cost of color which involves itself first in the initial cost of equipment, and second in the costs of its production. The latter, in the final analysis, reduces itself to man hours rather than costs of materials."

The most economical color arrangement of press equipment, the speaker stated, is to obtain full color by using reversing mechanisms and dual rails. Distribute these over three units, which permits using one, two or three colors and black in the product.

Press Drives

The concluding topic on the program was the *Electronic Drive* on printing presses which was discussed by C. P. Feldhausen of Cutler-Hammer, Inc., and C. R. Dayton of the General Electric Co. Mr. Feldhausen spoke about press drives and control using wound rotor a.c. motors. The most common primary power supply is 220 v. or 208 v., 3 ph., 60 cy. With this power supply available, a typical newspaper press geared for 50,000 i.p.h. and run on production at 42,000 i.p.h. can be operated at lower cost with straight alternating drives than with any other drive system, he claimed.

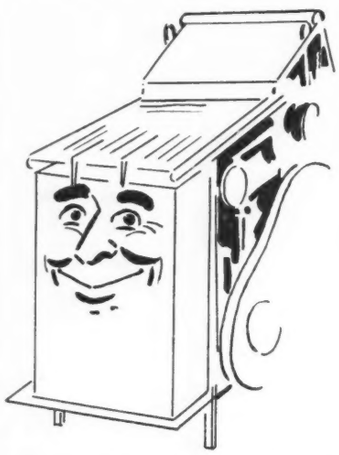
In reference to design changes made in the two-motor drive construction, Mr. Feldhausen said the threading motor, the slow motion gearing, the clutch and the main motor have been placed in line in order to reduce the width of the drive to a minimum. Speed control is obtained by using a motor driven cam type of drum switch. Slides illustrating recent Cutler-Hammer press drives and controllers were shown to the audience, along with slides of the latest type of control using the cam accelerating switch.

Mr. Dayton began his talk with a brief history of General Electric research into electronic drive. He told the Conference members that he wished to dispel the idea that the electronic drive is a tremendously complicated system. He defined it as simply a means of taking a.c. current and turning it into d.c. in order to accomplish the ideal job of running a press. The only thing electronic in the drives are six rectifier tubes which do the same job as an ordinary battery charger.

Six are required because of the 3 phase current. Each tube has to pass half of the current of each phase at the proper time for smooth flow of the d.c. current. Dayton continued that G-E engineers have replaced all control tubes with amplistat, a control center which determines what portion of the a.c. current goes into the rectifier to become d.c.

(*Continued on Page 84*)

ALBANY
Printers Specialties



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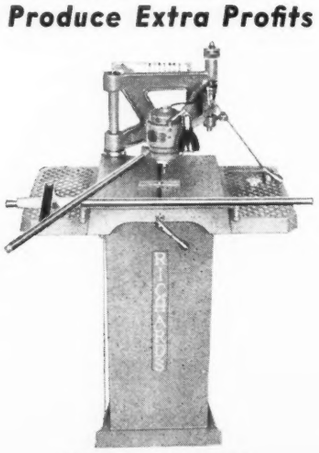

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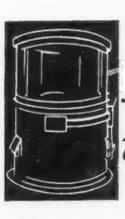

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Mailroom Session

GEORGE FELDT, Mailroom Supt. of the Milwaukee *Journal* and Otto Lepp, Mailroom Supt. of the Milwaukee *Sentinel*, served respectively as Chairman and Co-chairman of the Mailroom session. *Printing Equipment Engineer's* report of this session, necessarily, must be abbreviated. The reason is that most of the speakers used slides and movies to describe particular operations in recently mechanized daily newspaper mailrooms. For the first time in the history of the Great Lakes Conference, a big attendance was noted at the Mailroom session —and everybody stayed until the meeting adjourned in spite of the fact that this session was the last one scheduled on the program for the final day.

H. M. Van Dusen described operation of the *Journal* mail room. A substitute in the person of Mr. Fisher appeared for Circulation Mgr. E. H. Schroeder of the Milwaukee *Journal*. Mr. Fisher stated that operation of the *Journal* mailroom is a part of the *Journal* production department.

Walter James of Cutler-Hammer, Inc., gave a short talk on that company's new newspaper stacking delivery. The device will take 25, 50, 75 or 100 papers from the pressroom conveyor and count them in bundles automatically. One of the problems encountered by C-H engineers was that of stacking 100-paper bundles. This is now accomplished by stacking 50 papers and reversing the 50-stack through 180 deg. so that the top 50 papers will be placed on the pile in reverse position with respect to the folded edges at the end of the feeder conveyor. He said it is not likely that the new device will be ready for the market before a year and a half. He also stated it is not necessary to reverse half of the paper stacks when the stack consists of up to 30 papers. In answer to a query, Mr. James stated the machine is 6 ft. wide and 12 ft. long. He also stated there is no provision at present for placing the top wrapper on bundles, but such is under consideration by C-G engineers.

Next was shown a movie of the Sheridan newspaper stuffing machine in the plant of the Philadelphia *Inquirer*. According to the size of the paper, the machine will stuff sections at the rate of up to 10,800 papers per hour. The machine stops automatically if it fails to collate or feed one of the sections making up the paper.

Howard Jampol of The Jampol Co., illustrated his address with a number of slides taken in newspaper mailrooms engineered by his firm. Prominent in the mechanized mailrooms were C-H conveyors, feeder conveyors, wire tying machines and spiral and extension chutes to the trucks at the loading docks.

A. E. Katz, Production Engineer of the Toronto *Star* discussed briefly the Wallastar bundling and wire tying machine. There are now 26 Wallastar machines in operation in various parts of the country, including the Toronto *Star*. In one plant the machines are operating 18 hrs. per day.

H. C. Curtis of the Curtis Development & Mfg. Co., Milwaukee, described the newspaper mailroom bundle pusher which will be made by Signode-Parker. Most of the experimental work was done at the Milwaukee *Journal*.

Exposition Logotype

The original logotype currently being displayed by exhibitors at the Sixth Educational Graphic Arts Exposition was engraved by American Type Founders in the form of a brass matrix. From the matrix were cast single type-high pieces as shown in this illustration, just as ATF casts printers' type. A. E. Giegengack, President and General Manager of the National Graphic Arts Expositions, will furnish free logotypes manufactured by ATF to all exhibitors at the Exposition, which will be held in the International Amphitheatre, Chicago, September 11-23, 1950. The logotype will be used to imprint letterheads, envelopes, invoices, statements, direct mail and publication advertisements.

Purchases New York *Sun*

Announcement was made recently of the purchase of the New York *Sun* by the New York *World-Telegram*, a Scripps-Howard newspaper. The purchase of the *World-Telegram* included the name, the good will and circulation list of the *Sun*, according to the joint announcement made by Roy W. Howard, President and Editor of the *World-Telegram*, and Thomas W. Dewert, President and Publisher of the *Sun*. No plant facilities, physical equipment or real estate was involved in the transfer. The *World-Telegram* and the *Sun* are now being published under a joint title.

ADVERTISERS' INDEX FOR FEBRUARY 1950

P.E.E. REPRESENTATIVES

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EUGENE A. POWERS, Midwest Manager, 612 N. Michigan Ave., Chicago 11, Ill. Phone: SUperior 7-2444.

American Publishers Supply, Inc. 66
American Roller Co. 83
American Type Founders
11, Insert between pages 16, 17

Baum, Russell Ernest. 79
Bingham's, Sam'l, Son Mfg. Co. 4
Booth, E. A., Rubber Co. 81
Burgess Cellulose Co. 72

Certified Dry Mat Corp. 75
Challenge Machinery Co., The. 67
Chemco Photoproducts Co., Inc. 20
Cline Electric Mfg. Co. 83
Cook's, Adam, Sons, Inc. 82
Cromwell Paper Co. 69

Dexter Folder Co. . . . . Inside front cover
Dickerson, Robert W. 80

Eastern Newspaper Supply, Inc. 75
Edes Mfg. Co., The. 74
Electric Boat Co., Printing Machinery Div. 70

Fisher Furnaces Div., Lindberg Engineering Co. 82

General Electric Co. 23, 71
Goss Printing Press Co., The. 26
Graphic Arts Div., Eastman Kodak Co. 59
Greer, Robt. Royden. 80

Hammond Machinery Builders, Inc.
Inside back cover
Haney, The, O. C., Co. 81
Harris-Seybold Co. 9
Herrick, William C., Ink Co., Inc. 83
Hoe, R. and Co., Inc. 14

Ideal Roller & Mfg. Co. 82
Imperial Type Metal Co. 71, 76
International Printing Ink Div.,
Interchemical Corp. 12
Intertype Corporation. . . . . Outside back cover

Kemp, The C. M., Mfg. Co. 65

Lanston Monotype Machine Co. 2
Linotype Parts Co. 8, 67, 77
Ludlow Typograph Co. 7

Master Rule Mfg. Co., Inc. 80
Matrix Contrast Corp. 28
Mergenthaler Linotype Co. 57
Miller Printing Machinery Co. 3
Minneapolis Star and Tribune. 61
Mohr Lino-Saw Co. 83
Monomelt Co., The, Inc. 68
Montgomery Co., Inc. 83
Morrison Co., The. 22

National Lead Co. 73
New England Newspaper Supply Co. 77
New Era Mfg. Co. 21
New Products Div., The Beveridge Paper Co. . 77
Nolan Corporation. 80

Offen, B., & Co. 83
Oxy-Dry Sprayer Corp. 17

Paper Manufacturers Co. 73
Printing Equipment Engineer. 63
Printing Plate Supply Co. 81

Rapid Roller Co. 15
Richards, J. A., Co. 82
Rouse, H. B., & Co. 78

Scott, Walter & Co. 6
Shulman, Ben, Associates, Inc. 83
SKF Industries, Inc. 19
Sta-Hi Corp. 1
Standard Process Corp. 79
Star Cement Co. 83
Strong Electric Corp. 16
Surface Combustion Corp. 79

Timken Roller Bearing Co., The. 27
Tingue, Brown & Co. 10

Vandercook & Sons, Inc. 80
Vulcan Proofing Co. 69

Webendorfer Div.,
American Type Founders. 24, 25
Wetter Numbering Machine Co. 77
Williamson & Company. 19
Wood Flong Corp. 79
Wood Newspaper Machinery Corp. 13

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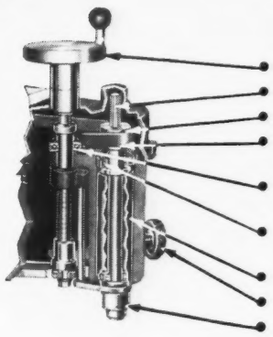

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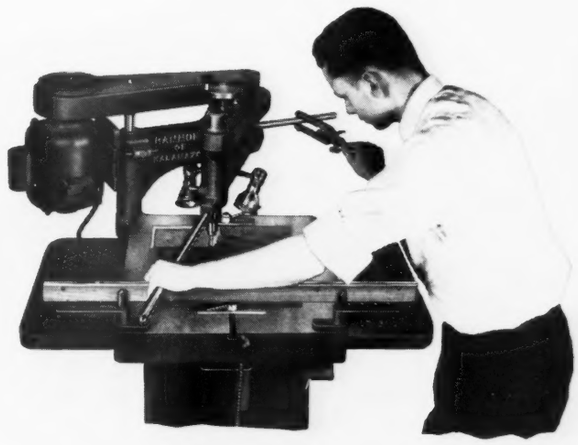

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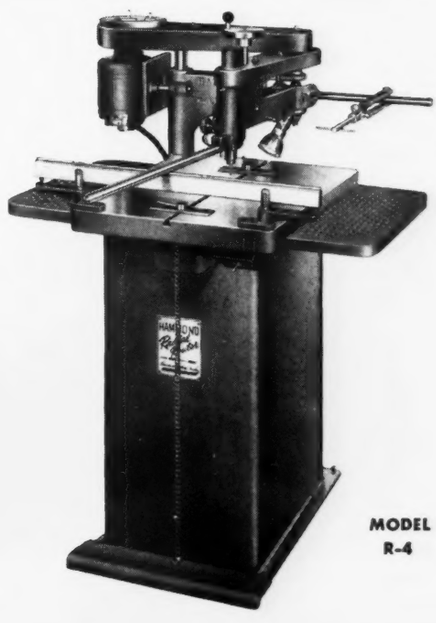

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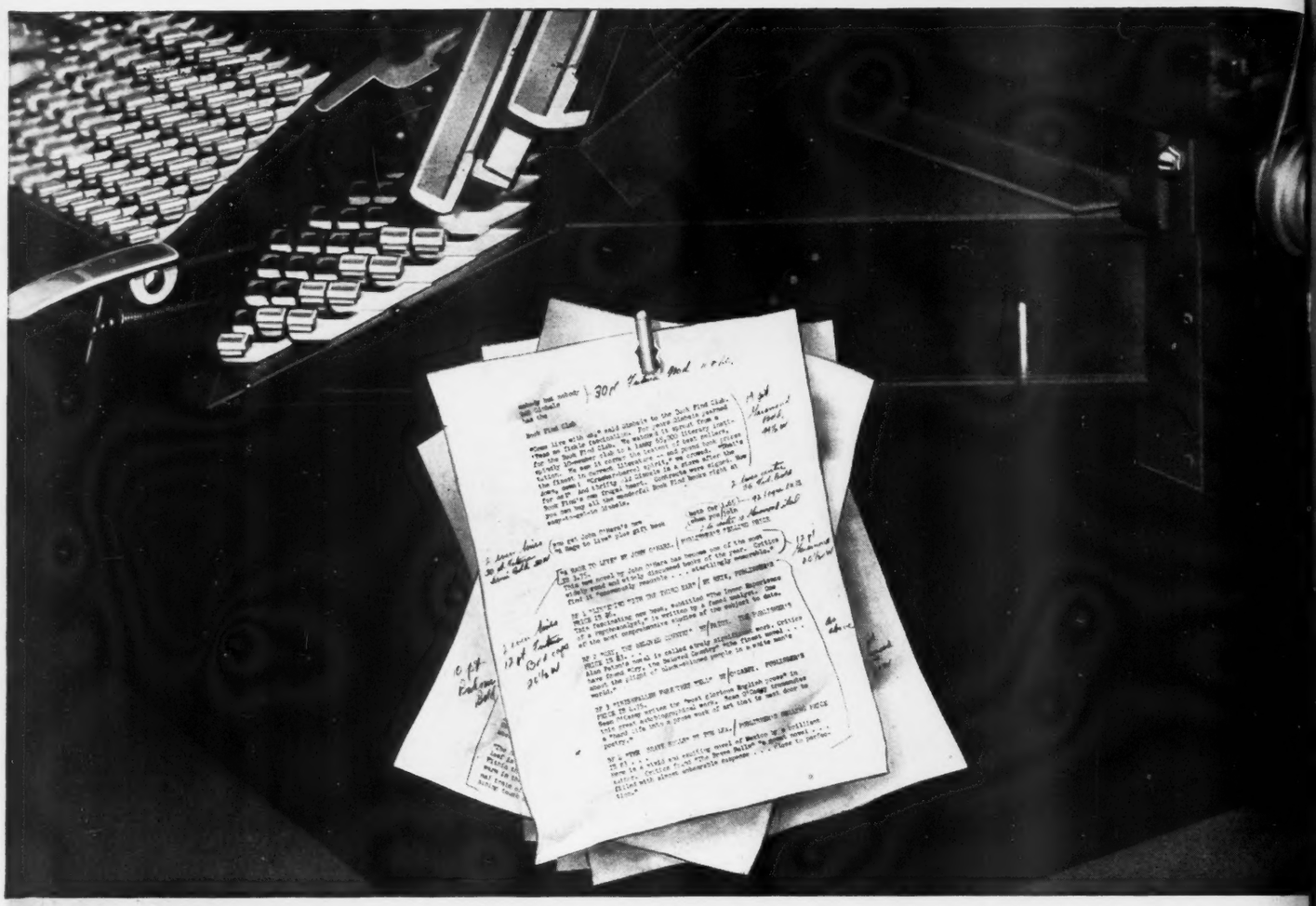

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